

Part 2

Comment Providers & Individual Responses

STATE REPRESENTATIVE
33rd DISTRICT
KAREN KEISER

State of
Washington
House of
Representatives

APPROPRIATIONS
EDUCATION
FINANCIAL INSTITUTIONS
& INSURANCE



May 9, 1997

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MAY 12 1997
DEPT. OF ECOLOGY

Tom Fitzsimmons, Director
State Department of Ecology
P.O. Box 47600
300 Desmond Dr.
Lacey, WA 98504-7600

Dear Mr. Fitzsimmons:

I was pleased to learn that the Department of Ecology and the Port of Seattle have signed a voluntary legal agreement to conduct a study of the ground water underneath Sea-Tac Airport. I also understand that the Department is accepting comments on the parameters of this study until June 13.

I am requesting that this study include potential groundwater contamination from oil tanks left behind from homes the Port purchased decades ago in its buyout areas. I have been in contact with staff in your Northwest Regional Office regarding the oil tank issue. The fact is, the complete removal of such tanks has never been **definitively documented** by the Port. We have a consensus on this fact. As such, I think it is necessary to include this within the scope of this project to eliminate concerns on this potential pollutant as well. I have included the newsletter outlining the extent of this study for your convenience.

I look forward to hearing from you. Thank you in advance for your attention to this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Karen Keiser", written over the word "Sincerely,".

Karen Keiser
State Representative
33rd District

KLK:se

cc: Mike Rundlett, Northwest Regional Office
Roger Nye, Northwest Regional Office

LEGISLATIVE OFFICE: 321 JOHN L. O'BRIEN BUILDING, PO BOX 40600, OLYMPIA, WA 98504-0600 • (360) 786-7868
HOTLINE DURING SESSION: 1-800-562-6000 • TDD: 1-800-635-9993

RESIDENCE: (206) 839-8694

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STATE REPRESENTATIVE
33rd DISTRICT
KAREN KEISER

State of
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MAY 23 1997

DEPT. OF ECOLOGY

APPROPRIATIONS

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& INSURANCE

May 21, 1997

Tom Fitzsimmons, Director
State Department of Ecology
P.O. Box 47600
300 Desmond Dr.
Lacey, WA 98504-7600

Dear Mr. Fitzsimmons:

I wanted to follow up with some additional concerns regarding the Department of Ecology's move to conduct a study with the Port of Seattle on the flow of groundwater beneath Sea-Tac Airport.

As the Department is currently soliciting input on the parameters of this study, I² thought it important to address the appropriateness of following guidelines set forth under the Model Toxics Control Act (RCW 70.105D(1) versus WAC 173-200. In a recent newsletter mailing, the Department states that the study was essentially born from the need to meet two sets of environmental requirements. The Department states that the Department and Port are attempting to comply with the Model Toxics Control Act (MTCA) which is a "**remedial action under MTCA**." I agree with many members of my community that airport pollution concerns are not restricted to **remedial action** from past operations. Current airport operations such as fueling and deicing will have an **ongoing** impact on the communities. The parameters of this study ignores this.²

Ecology has also stated that the "**ground water study is one condition the Port must meet to maintain state environmental certification of the airport expansion project**." Clearly, the stakes are high for both the community and the Port in this process. Accordingly, we need to ensure this study is comprehensive and **conclusively** answers our concerns with regard to past and future groundwater contamination sources.

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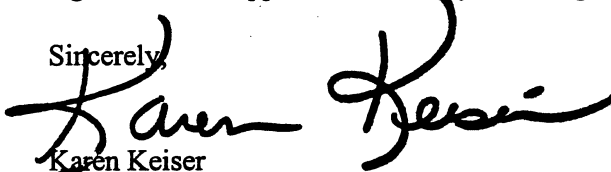
Again, I share concerns with local officials that the Department may have chosen an inappropriate environmental standard for this process. I think recent concerns and criticisms raised by the community with regard to exclusively using the MTCA are legitimate. For example, by only including the Port's Industrial Waste Treatment System, the Department is essentially ignoring other serious potential pollutants such as the airport's fueling and deicing systems.¹ Equally important, [this study fails to address the issue of potential pollution from oil tanks buried in the buyout zones decades ago]¹- something I have addressed in previous correspondence to you.² [Why has the Department restricted provisions under WAC 173-200 to the Industrial Waste Treatment System?]²

³ [The purpose of the groundwater study is to gain a more complete understanding of the direction and behavior of groundwater flows underneath the airport. This study includes a 320 acre area of an expansive, 2500-acre operation]³ Due to the concerns of the taxpayers in my district,³ [I believe we need to carefully consider whether this study will answer our questions regarding potential pollution from *ongoing* operations as well as the past]²

I believe the Department and the Port have an opportunity here to restore our confidence in the public process. Historically, such environmental evaluations have embraced government technocrats and alienated homeowners most impacted by these operations. I ask that you consider these thoughts when making your decision.

Again, I would appreciate hearing your thoughts on this matter soon.

Sincerely,



Karen Keiser
State Representative
33rd District

KLK:se

cc: Mike Rundlett, Northwest Regional Office
Roger Nye, Northwest Regional Office

Response to comments by State Representative Karen Keiser

Comments were received in letters dated 5/9/97 and 5/23/97.

Comment #1:

The Agreed Order should include a study to determine the potential groundwater impact from abandoned home heating oil tanks located in “buyout areas” outside Sea-Tac Airport where the Port of Seattle had purchased homes during past years.

Response#1:

Response to this comment is provided in Part 1 of the Responsiveness Summary.

The purpose of the STIA groundwater study is to assess risk posed by known and potential contamination already existing in the Qva aquifer beneath the AOMA to drinking water wells and surface water bodies. The study appropriately focuses on the AOMA area of the airport where the large facilities are now and have historically been located. The abandoned home heating oil tanks in the “buyout areas” are located outside the airport and nearly three miles from the study area. The groundwater flow model, which will model the regional aquifers, will encompass the home buyout areas. However, an evaluation of the potential for these tanks and possible many other sources of contamination within three miles of the AOMA to impact the regional aquifers is outside the scope and purpose of the STIA groundwater study and will not be included in the Agreed Order.

The Department of Ecology did however, respond to Representative Keiser’s concerns. The agency devoted extensive time to evaluate potential environmental risks posed by the abandoned home heating oil tanks in Port home-buyout areas. The results of this evaluation were provided to Representative Keiser and other state legislators in a detailed response dated 11/19/97 from Ecology’s Director, Mr. Tom Fitzsimmons. A copy of that response is attached. The conclusion of the evaluation was that the abandoned home heating oil tanks located in the Port home buyout areas did not appear to pose a threat to human health and the environment sufficient to warrant direct action by Ecology.

Comment #2:

The Agreed Order concerns only pollution from past operations and instead should address pollution from ongoing and future operations as well. WAC 173-200 is the appropriate environmental standard for conducting the groundwater study rather than the MTCA (WAC 173-340). The provisions of WAC 173-200 should not be restricted to the Industrial Waste Treatment System, but should apply to the deicing and fueling systems at the airport as well.

Response #2:

Response to this comment is provided in Part 1 of the Responsiveness Summary.

The purpose of the Agreed Order is to assess risk posed by groundwater that has (or potentially has) been contaminated already, and it is Ecology’s responsibility under RCW 70.105D 036 to take this action. To be “contaminated” generally means that groundwater

contains any contaminant in excess of the groundwater criteria as per WAC 173-200-040 and/or Method B groundwater cleanup standards as per WAC 173-340-720. This assessment of risk is an investigative remedial action and must be done under the MTCA. The MTCA is a “reactionary” regulation, and the only regulation that addresses contamination after it has taken place. There is no authority or provision under WAC 173-200, which is a “preventative” regulation, to conduct remedial actions that address contamination after it has taken place. It is irrelevant to this Agreed Order whether or not the preventative provisions of WAC 173-200 apply to deicing and fuel systems or not.

Contaminant fate and transport modeling will focus on known and potential locations of historical contamination in the Qva aquifer within the AOMA. Assuming however, that there could be major current and future releases even with the much stricter regulation of hazardous substances than existed in the past, the study will provide a clear concept of what happens to contamination in the Qva aquifer when and where it could occur. Furthermore, the comment ignores the fact that a major component of the Agreed Order is preventative in nature. The Toxic Cleanup Program implements WAC 173-360, the Underground Storage Tank (UST) regulations that are specifically for the purpose of preventing releases from fuel systems. The Agreed Order provides for insuring compliance with these regulations at Sea-Tac Airport and takes additional steps to prevent releases from fuel systems.

Comment #3:

The purpose of the groundwater study is to gain a more complete understanding of the direction and behavior of groundwater flows underneath the airport, but this study only includes a 320-acre area of an expansive, 2500-acre operation.

Response #3:

Response to this comment is provided in Part 1 of the Responsiveness Summary.

In order to accomplish the goals of the groundwater study, the groundwater study will encompass a large area that includes all of Sea-Tac Airport, the identified surface water bodies and drinking water wells identified as “receptors” in the Agreed Order, and considerable additional area as well.



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

*P.O. Box 47600 • Olympia, Washington 98504-7600
(360) 407-6000 • TDD Only (Hearing Impaired) (360) 407-6006*

November 19, 1997

The Honorable Karen Keiser
State Representative, 33rd District
321 John L. O'Brien Building
P.O. Box 40600
Olympia, WA 98504-0600

Dear Representative Keiser:

Thank you for your patience in awaiting our more detailed response to your concern about buried oil tanks in your district. Ecology wanted to thoroughly evaluate your concerns, both from a technical and regulatory perspective before responding. Your concern was particularly that abandoned home heating oil tanks associated with homes purchased by the Port of Seattle (POS) for safety zones many years ago could contaminate public drinking water supplies.

There are two safety zones near SeaTac Airport where the POS has purchased and eliminated hundreds of homes in an ongoing process that began more than 25 years ago. One zone is in your district south of the runways (Southern Clear Area), and the other zone is in District 34 north of the runways (North SeaTac Park area). Both safety zones are undeveloped except for the north part of North SeaTac Park, where playing fields and parking areas have been constructed. The undeveloped areas have reverted to wild and mostly impassible conditions, and there is very little observable evidence of former houses.

Based on the material you enclosed with your letter to Ecology and your comments on the groundwater project at SeaTac Airport, your concern appears to be focused on the North SeaTac Park area. Ecology considered the issue of abandoned home heating oil tanks in both safety zones and presents you with the following findings:

- (1)** The abandoned home heating oil tanks do not appear to pose significant risk to public drinking water aquifers below the safety zones because (a) the tanks are low-volume, finite (the tanks will never be filled again), possible sources of contamination spread out over a large area and cannot impact the environment nearly as much as, for example, a large tank that leaks in one location, (b) the

hydrogeology beneath the zones includes major multiple aquitards (formations that impede the vertical movement of contaminants and groundwater) that protect the aquifers from surface contamination, and (c) heating oil has limited mobility in the subsurface environment because of its chemical nature. The Seattle Water Department stated its determination that the abandoned tanks in North SeaTac Park did not pose a threat to the underlying aquifer in a formal response to you last March through Seattle City Councilmember Pageler, and Ecology concurs with this determination.

(2) Utilizing Ecology's recent Interim Total Petroleum Hydrocarbon (TPH) Policy, the Pollution Liability Insurance Agency (PLIA) has calculated a soil cleanup standard for heating oil of 3,000 ppm. This standard is much higher than the Method A standard of 200 ppm for petroleum hydrocarbons in soil, the only standard previously available. The practical effect of the higher standard is that, for the most part, little or no cleanup is required for historical heating oil tank releases. Twenty abandoned tanks were found and removed during the construction of the playing fields in North SeaTac Park and the contaminated soil associated with each tank was cleaned up to the 200 ppm standard. With the exception of one tank, most of the contaminated soil associated with these tanks was below the 3,000 ppm standard.

(3) The abandoned tanks cannot easily be found. The large quantity of buried metallic debris from the demolished houses (for example: piping, wiring, sinks, bathtubs, rebar, etc.) would make singular detection of the tanks using various metal-detection techniques very questionable. Furthermore, the impassable conditions in most parts of the zones would make large-scale surveys difficult. King County personnel involved in the construction of the playing fields in North SeaTac Park utilized metal-detection equipment in an effort to find abandoned tanks and found mostly other metallic objects. According to John Ryland, King County Project Manager for the development of North SeaTac Park, the park would have to be strip mined to find all the abandoned tanks there.

(4) Ecology has no regulations that mandate homeowners to remove or otherwise close heating oil tanks. Heating oil tanks are specifically exempt from all operational and closure requirements in the Washington Underground Storage Tank regulations. The "letter of the law" you refer to that applies to homeowners, is the Uniform Fire Code. There are long-standing requirements for the closure of underground storage tanks in the Fire Code, but until recently, these requirements

were not considered as applicable to home heating oil tanks. Local jurisdictions vary as to their particular requirements for the closure of home heating oil tanks.

(5) Ecology has published a report on home heating oil tanks (Report R-TC-92-117) that was intended as helpful guidance to homeowners with tanks. Because contaminated home heating oil tank sites are so numerous and the contamination associated with them is universally minor in nature, the report requests homeowners to report contamination from these tanks to the agency only under particular circumstances which are: if the oil has impacted a well, surface waters, or groundwater; if the oil has caused vapor problems in a building; and if the oil has reached adjoining properties or soil contamination is extensive. There are only a very few exceptional cases involving releases from home heating oil tanks that Ecology tracks as contaminated sites. There is no evidence that any of these circumstances apply to the abandoned tanks in the safety zones.

Given all of the above considerations, Ecology has determined there are no actions the agency could appropriately require the POS to take concerning the abandoned heating oil tanks in the safety zones.

As we committed to you, during Ecology's meeting with the POS on October 1st, we presented your concerns about the abandoned tanks in the safety zones. There was a discussion as to reasonable actions that could be taken by the POS concerning the tanks. Actions discussed included establishing a formal process to deal with tanks as they are discovered during development work (a process that already has taken place during construction of the playing fields in North SeaTac Park), establishing a formal policy for park employees to be cognizant of any outward signs of an abandoned tank (slumping, odors, sheen, etc.), and also whether any groundwater testing or monitoring actions could be appropriate. The POS did not commit to any specific actions during the meeting other than to consider the matter further internally.

It is my understanding you have recently approached Port Commissioner, Gary Grant, directly concerning your issue of abandoned tanks in the safety zones, and that the POS will be responding to you directly concerning any actions it is willing to take.

In more recent home buyout activities in the 1990s which have expanded both safety zones, the POS has removed all home heating oil tanks and cleaned up the associated contaminated soil. The POS documented these activities in a report submitted to Ecology.

Representative Keiser
Page 4
November 19, 1997

Ecology will track this process in future POS home buyout activities and insure that the process continues.

Again, thank you for awaiting our detailed response. A copy of our technical report is enclosed. Ecology treated your concerns very seriously and devoted much time to evaluating them. Our evaluation has determined that the abandoned heating oil tanks located in the two safety zones near SeaTac Airport do not appear to pose a threat to human health and the environment sufficient to warrant direct action by Ecology at this time. Mike Rundlett, our Northwest Regional Director, will be glad to arrange a followup technical briefing for you or your staff on this issue. He may be reached at (425) 649-7010.

Sincerely,



Tom Fitzsimmons
Director

Enclosure
RN:rn

cc: Margaret Pageler, City of Seattle
John Ryland, King County
Bob Schwartz, Seattle Public Utilities
Steve Wieneke, Highline Water District
Gary Grant, Commissioner, POS
Dow Constantine, State Representative, District 34
Julia Patterson, State Senator, District 33
Rod Blalock, State Representative, District 33
Michael Feldman, Seattle-Tacoma International Airport

RECEIVED
MAY 16 1997
DEPT. OF ECOLOGY

Roger Nye
Dept. of Ecology

May 14, 1997

Re: Agreement with Port of Seattle's
Groundwater study.

I just have one or two comments:

¹ [I believe the D.O.Ecol.' standards-
or that of EPA, should be much
stronger for contaminants.

The Port's study may show some
contamination, but at what level of
standard? It should be stricter!

² [I trust this study is independent
of the Port.] ² Also, I trust that
when the port quotes a price
for clean-up that we all notice
the crossed-fingers and tongue-in-
cheek with which they articulate

Sincerely,

Leopoldo Medina

Response to comments by Leroy Hedeman

Comments were received in a letter dated 5/16/97.

Comment #1:

The standards for cleanup of contaminants in the environment should be stricter.

Response #1:

Cleanup standards for contaminants are established by regulation and cannot arbitrarily be made stricter. For state-regulated cleanup actions, cleanup standards to protect human health for soil and groundwater are specified in Washington's cleanup regulation, the Model Toxics Control Act (WAC 173-340-720,740,745). The cleanup standards for each contaminant are computed based on the known toxicological properties of that particular contaminant and the scenario by which human exposure to the contaminant takes place. New knowledge about the effects of a particular contaminant could change the cleanup standard for that contaminant. The exposure of other organisms to contamination can also influence cleanup standards in specific situations.

Cleanup standards for contaminants in groundwater are relevant to this Agreed Order. The strictest standard for contamination in groundwater for human health is that the water can be used for drinking water. This standard applies to the groundwater in aquifers at Sea-Tac Airport. Contamination of the groundwater in excess of these standards triggers the cleanup process under the MTCA.

Comment #2:

The STIA groundwater study should be independent of the Port of Seattle.

Response #2:

The STIA groundwater study is being carried out as an investigative remedial action under a formal agreement (the Agreed Order) between Ecology and the Port of Seattle. This agreement is standard procedure as specified in the Model Toxics Control Act (MTCA) when Ecology is formally involved in remedial actions carried out by any potentially liable person (PLP) to address its responsibilities under the MTCA. Under this agreement, a PLP responsible for contamination cannot be uninvolved in the remedial actions that address the contamination that PLP is responsible for. By signing the Order, the Port has agreed to carry out and fund the actions specified in the Order. Ecology reviews and approves of all actions accomplished by the Port before the project can be completed. Additionally as a part of this standard procedure, the work of the project is presented to the public for scrutiny, review and comment.

Transcript from May 21, 1997 Public Meeting

Speaker 1: Dan Caldwell

Past President - Board of Commissioners - Highline Water District

Those of you from around here know me as being rather hard nosed about the public water supply and the aquifers underneath. We have two sources of water. One is surface water and the second is aquifers. Our surface water supply is running out - in 1992 it almost ran out completely. The groundwater around here partly helped save us. It also brought ? water from Federal Way and Tacoma, so this water here is desperately essential.

I expect the DOE to take the lead in cleaning up this mess. I don't think it's going to do it to have a nice gentlemen's agreement, pass a bill, etc. ?...?...? The department must take the lead. I think we can eventually expect the governor's support. Right now he indicated he is supporting us now, which he wasn't before. He vetoed the mining bill.

But, the public water supply is paramount! It must be protected. A large number of small businesses around the airport went bankrupt cleaning up their share. The airport must also clean up their share. This is a serious problem - it may run \$1 billion! As far as the third runway is concerned - well it may become the world's biggest parking lot. I don't think it will ever be built.

But, the public water supply is paramount. I think we should give all the support we can to DOE to make sure that adequate clean up is made - the same clean up you or I would have to do in our yards. I

I'll say one thing primarily: public water supply is the most important issue here, protection of the region's water supply, and that's my speech.

May 19, 1997

Mr. Roger Nye
Department of Ecology
Northwest Regional Office
3190 160th Avenue S. E.
Bellevue, Wa 98008-7251

Groundwater Contamination At Sea-Tac Airport

Dear Mr. Nye

I am or have been member of the American Water Works Association, Pacific Northwest Section AWWA, Washington State Water/Wastewater Association, Signatore Seattle Water Contract, President Highline Water District Board of Commissioners, Chairman Groundwater Advisory Committee, President Regional Water Association. I have a strong concern regarding preservation of our dwindling water resources.

While transportation issues in the region can be important the operators of Sea-Tac Airport are not above the law. They must obey the same laws which the other citizens and businesses in the area obey especially when the health and safety of the public drinking water supply will be placed in jeopardy by frivolous acts.

Governor Locke recognized that the Sea-Tac Airport operators were jeopardizing the public water supply when he vetoed House Bill 2283 regarding surface mining at Sea-Tac last month. He also has warned that the act originators may attempt to force through another version at the next legislative session.

2[The model for the proposed study is a farce. It appears as a childish ploy to placate the ignorant. As you are aware water seeks its own level. The model covers high ground at the highest point of the airport which has been covered with concrete for generations. The fore slope is the airport lawn which has existed for years. Contamination in the model area can be expected to be long gone and probably has reached the aquifers years ago.]2

3[The model does not cover the old and operating fuel tanks. It does not cover the deicing glycol contamination alongside the runways. It does not cover the buried fuel tanks left in place when over a thousand homes were removed from the runway crash zones. The entire 2500 acres of Sea-Tac airport must be included in the study plus the area of the rivers leading away from the airport operation to protect the public from a long term corrupt waste drainage system.]3

The issue is the safety of the public water supply for two million people living within this region.

To give you a background. The Puget Sound Basin region was

frequently covered by glaciers. The retreating glaciers left layers of sand and gravel which because of their porosity became natural aquifers. Some of the aquifers have imperfect layers of clay which tend to separate the aquifers. Some geologists believe that fresh water aquifers are below Puget Sound and extend into the Olympic Mountain Region. Salt water intrusion is prevented simply because the pressure of surface water from high ground forces fresh water into Puget Sound and the Columbia River near Portland. These aquifers are directly under Sea-Tac Airport. Because the airport operators appear to have the integrity of a tobacco company environmental laws and FAA deicing regulations appear to be totally ignored or belittled.

The Federal Aviation Administration has a strict Advisory Circular AC No. 150/5300-14 pertaining to the DESIGN OF AIRCRAFT DEICING FACILITIES which requires protection of the apron from aircraft deicing fluids.³ [The model does not include the apron.]³

4 [To demonstrate the severity of this problem in 1963 the Highline Water District closed their 14 wells because of contamination problems and began purchasing water from the Seattle Water Department.]⁴ Seattle has two water supplies. The Tolt and Cedar River reservoirs.

Due to the increase in population particularly in the eastside and the limited supply of Seattle surface water it became necessary for the Highline Water District to develop new wells. This was followed by well recharge system in Rivertown Heights developed by the Seattle Water Department in the 1980's.

You will recall the series of droughts in the early 1990's followed by a disastrous loss of water from the Seattle Cedar River reservoir in 1992. At that time the Riverton Heights Well system and Highline Wells system provided a substantial level of water for this region. Those wells draw water from the aquifers which extend under the 2500 acres of Sea-Tac Airport.

5 [At present WD 54 in Des Moines draws unfiltered water from one aquifer. Seattle Water Department and Highline Water draw water from the third aquifer approximately 100 below sea level. Federal Way also draws from this aquifer. Federal Way, Tacoma and Auburn draw water from an aquifer approximately 1000 feet down which is also part of this system.]

Contamination follows the downward flow of water into these aquifers and follow the water supply to the well heads. If contamination cannot be treated at the well head the alternative is to close down the wells.⁵

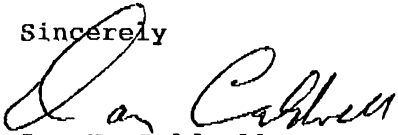
In 1995 and 1996 Diana Gale, Superintendent of Water for The City of Seattle wrote several letters to Mr. Dennis Ossenkop of the FAA warning of the potential hazards to the aquifer if the airport operators continued with their plan to strip earth

above the aquifers for their runway repairs and proposed expansion. To date I have not seen any response to these letters. As mentioned above Governor Locke vetoed the bill.

It must be emphasized. THE REGIONS WATER SUPPLY IS LIMITED.

6[I suggest that independent water professionals be brought in by the State and funded by the State to keep political bias out of the airport cleanup measures.]6

Sincerely



Dan N. Caldwell
Commissioner (Retired)
c/o RCAA
19900 Fourth Ave. SW
Normandy Park, Wa 98166

Response to comments from Dan N. Caldwell

Comments were presented orally at the May 21, 1997 public meeting and received in a letter dated 5/19/97.

Comment #1:

The Department of Ecology is expected to take the lead in protecting the public water supply, the most important issue, by making sure the mess at the airport has an adequate cleanup such as citizens would have to do in their yards. A large number of small businesses around the airport went bankrupt cleaning up their share, and the Airport must also clean up its share.

Response #1:

Part 1 of the Responsiveness Summary provides response to this comment.

Protecting the public water supply is exactly the purpose and motivation behind the Agreed Order. It is an interim investigative remedial action to evaluate the risk posed by contamination in groundwater at the airport to surface waters and drinking water supplies, rather than waiting on the long-term process of cleanup to provide this assurance.

Comment #2:

The model for the proposed study is a farce because the model area only covers the high ground of the airport where contamination is long gone and has probably already reached the aquifers.

Response #2:

The groundwater flow model covers a large area that includes the entire airport (approximately 3 square miles), the receptors identified in the Order, and additional surrounding area. Major sources of contamination at the airport have been or are currently located within the AOMA area of the airport and also the significant soil contamination and known locations where the Qva aquifer has been contaminated. Contaminants released at the surface within the AOMA must travel downwards through 50 – 80 ft. of soil before impacting the Qva aquifer beneath. As documented in numerous cleanup reports, contamination can persist in the overlying soil for a long time. This contamination is not “long gone” and can continue to impact the aquifer beneath. The purpose of the model however, is not to study how or if contamination released at the surface gets to the aquifers beneath. The purpose of the model is to determine where known or potential contamination already in the Qva aquifer beneath the AOMA goes and if the contamination will impact the receptors.

Comment #3:

The model does not include the old and operating fuel tanks, the deicing glycol contamination alongside the runways, the buried fuel tanks left in the “home buyout” areas, and the “apron” of the airport. The entire airport must be included in the study plus the areas of the rivers leading away from the airport.

Response #3:

The purpose of the STIA groundwater study is to determine if known or potential areas of contamination in the Qva aquifer beneath the AOMA could move away from the AOMA in groundwater and impact receptors. The large area-wide coverage of the groundwater flow model makes this possible. The AOMA is where the known impacts to the Qva aquifer are located, and it is also where major sources of contamination with the capacity to impact the Qva aquifer are or have been located. The old and operating fuel tanks and the apron (where aircraft are parked during refueling and passenger / baggage transfer activities) of the airport are located within the AOMA.

The areas where home heating fuel tanks left in “home buyout” will not be evaluated in the contaminant transport model because it is not considered that these abandoned fuel tanks could pose a significant risk to regional aquifers (see response to Representative Keiser’s first letter). Areas alongside runways will not be evaluated in the model because it is considered that any deicing glycol contamination would at most, impact soil only and not the Qva aquifer. There is a greater potential for deicing glycol to impact the Qva aquifer within the AOMA because that is where it is sprayed on the aircraft and also has been and is stored in underground storage tanks systems.

The groundwater flow model will encompass the entire airport, area of the streams leading away from the airport, and considerably more area as well. The contaminant-transport modeling will evaluate potential impacts to streams leading away from the airport from the contamination within the AOMA through base flow of the aquifers into the streams.

Comment #4:

In 1963, the Highline Water District closed their 14 wells because of contamination problems from Sea-Tac Airport.

Response #4:

This is a serious allegation. Ecology contacted the Highline Water District and asked if there were any records of Highline Water District water wells having been closed down because of contamination from hazardous substances. The response from the Highline District was that records indicated some wells south of Sea-Tac Airport had been closed down in past years for various reasons, but not because of contamination from hazardous substances. Additionally, employees that worked for the Highline District for over 35 years were asked if they could recall if any Highline water wells were closed because of contamination, and none said the knew of such an occurrence.

Comment #5:

Contamination follows the downward flow of water into the aquifers that Water District 54, Seattle Water Department, Highline Water District, Federal Way, Tacoma, and Auburn draw water from, and then to the wells of these public water utilities.

Response #5:

The comment oversimplifies the flow of groundwater and the behavior of contaminants in the subsurface. Given a large and persistent enough source of contamination at the surface, contamination can reach underlying aquifers. It does not follow however, that contamination once in an aquifer, inevitably travels to water supply wells. The transport pathway of contamination in an aquifer is dependent on groundwater flow, which is influenced by geological conditions and pressure gradients including the capture zones of the public water supply wells. Furthermore, there are mechanisms that attenuate contaminants in groundwater over distance and time which depend on the nature of the geological medium and the chemical nature of the particular contaminant.

Federal Way, Tacoma, and Auburn are much too far away for contamination in groundwater at Sea-Tac Airport to reach water wells in those cities. The STIA groundwater study will determine if contaminants in groundwater at Sea-Tac Airport could reach the capture zones of water wells belonging to Water District 54, Seattle Water Department, and the Highline Water District.

Comment #6:

Independent water professionals should be brought in by the State and funded by the State to keep political bias out of the airport cleanup measures.

Response #6:

The STIA groundwater study is being conducted as a remedial action through an Agreed Order, which is a formal agreement between the Department of Ecology and the Port of Seattle. This is standard procedure as specified in the Model Toxics Control Act when Ecology is formally involved in the cleanup actions of any potentially liable person (PLP). Under this standard agreement, the Port (or any PLP) performs and funds the work, but Ecology reviews and must approve of all work before the project can be completed. Ecology does not typically fund or do remedial action work directly. All work done during the groundwater study will be open to public scrutiny and comment which as part of the Agreed Order process.

Transcript from the May 21, 1997 Public Meeting

Speaker 2: Clark Dodge

Good evening. I might heckle Dan's comments - I'm a former city councilman from Normandy Park and past president of RCAA.

A number of years ago I formed a group called "Miller Creek Management Coalition". This was an Inter Local Agreement between the cities of (Burien, Normandy Park, Des Moines, SeaTac), Port Of Seattle, King County Surface Water Mgmt, and the sewer districts (SW Suburban, Midway). It involved the Trout Unlimited. It involved the Normandy Park Community Club.

One of the primary reasons we formed the club was we wanted the people that would actually be able to make the decisions; people that had the answers. Our first meeting was held at the POS. We wanted directors of surface water management, we wanted the public works directors. I wanted the people at this meeting to get the answers to their questions, and I also wanted everybody at the same table. Because the issue of surface water, ground water, stream restoration, the lakes - of all the streams that either had head waters close to the POS, or the cities that surround the POS - so we made sure we did not overlook issues that we are talking about tonight.

The city of Burien is in the final stages of their comp plan - so we have sort of been at hold until that was done. Now that it is done we are again going to continue to work with this, (I'm sorry, it is near being done).¹ But, I want to make sure that all the players are involved in this and that we seriously look at the surface water issues.² We are stewards of this planet and especially the water - once it is contaminated - the earth is contaminated - we'll have a real tough time recovering it and cleaning it up.

Thank you.

Response to comments by Clark Dodge

Comments were presented orally at the May 21, 1997 Public Meeting.

Comment #1:

All organizations and persons associated with surface water and groundwater issues and activities in the area of the airport should be involved in the Agreed Order. There should be a serious look at the surface water issues.

Response #1:

The STIA groundwater study is a cleanup action being done under State cleanup law, the Model Toxics Control Act, and the public participation activities will be those afforded under the cleanup process. There are two public comment periods associated with the Agreed Order, and it is hoped that particularly those with knowledge, expertise, and involvement related to actions performed in the groundwater study will comment.

The scope of the groundwater study includes evaluating risk possibly posed by known and unknown contamination in groundwater at Sea-Tac Airport to drinking water supply wells and to surface water bodies. In the case of surface waters, the study looks at the potential of contaminant transport via groundwater flow and seepage into the creeks and Bow Lake. Other issues regarding surface waters such as pollution control, storm water runoff, and impacts from construction activities at the airport are outside the scope of the groundwater study and are more appropriately addressed through other regulations and processes.

Transcript from May 21, 1997 Public Meeting

Speaker 3: Greg Wingard

As accustomed as I am to brief speaking, I'll see what I can do.

I am speaking tonight on behalf of CASE. I'd like to thank DOE and all the people who have shown up tonight for coming out and taking the time to do this. And I'd like to also mention that a lot of the people here with DOE tonight are people I have worked with specifically on the SeaTac issue. We've had a number of meetings with Mike on this issue. Roger has provided me with lots of information, including his two 4-drawer file cabinets full of consulting reports and contamination, and has spent a lot of time going over what some of those reports mean and how the data integrates and stuff like that. Marianne Deppman, whose working on public relations on this matter is somebody I have worked with on public relations before - and I have a lot of respect for the work that she is doing.

My comments are specifically on what is going on with this order. ¹ [The public process here is inadequate. The order has been the subject of negotiation between DOE and the POS for at least the last 2 years. In spite of the massive impact this order has on the way cleanups happen, the way groundwater is regulated, and the way public involvement will be conducted - the public was never at the table. To open the door now and let the public in to take a quick look after the deal has been cut is not adequate. It's inappropriate, and it violates the spirit & intent of MTCA - which is the basis of the order.]¹

These comments are pretty general because I'm trying to make them quick. I'll have written comments that are more specific.

⁴ [The POS gets the benefit of an agreed order which makes the whole airport a MTCA site, eliminates application of a state waste discharge permit for groundwater from consideration for many of the operational facilities with the exception of the IWS or the waste system lagoons.] ⁴ [If also gives the POS the benefit of an agreed order and a paid position allowing the POS and its tenants to continue doing independent cleanups with no public participation. MTCA says that agreed orders and paid positions require that a public participation plan be in place. This has been a major issue with the public

for some time - and DOE has, on numerous occasions, been made aware of the public's dismay over this.]²

3 [The modeling approach being used is defective. While groundwater data, quantity base, not quality, will be collected from around the airport, groundwater chemical data will only be collected from some sample locations in the aircraft operations and maintenance area. The airport & vicinity data will be used to generate a model on groundwater movement, historical data on spills, and AOMA chemical sample data will be used to provide source information for contaminant source information for the model. Since the order specifically eliminates defining the nature and extent of contamination, the model will be defective, as it will describe the contaminant transport from the described source locations without considering the actual extent of contamination.]³

We have watched the POS use models for air and noise and both models were found to be defective. It is not much of a surprise they were defective in a way that benefited the POS. With the ambiguity involved in this model, and the POS history, the idea that a consultant for the POS is going to find pollution is discharging to a receptor is beyond my comprehension. No doubt, it would be the last job they did for the POS.

5 [The order fails to protect public resources and illegally permits disposable activities. The order says that if pollution from the AOMA is not discharging to a receptor no further studies are necessary. No further wells would have to be placed. This would, of course, result in abandoning whatever waste was in those locations - in subsurface soils and groundwater, which would allow POS and tenants to use subsurface soils, perched groundwater and the QVA aquifer as a disposal facility with no permits and little control.]⁵ [While the order attempts to define the receptors as the only waters of concerns of protection zones, all groundwaters are waters of the state, for it is a public resource belonging to the public, not the POS, the airlines, and fuel suppliers.]⁶ [WAC 173-200 is clear "discharges to groundwater must be regulated as close to the source as possible - with the point of compliance being the entry point of waste into the groundwater. The order attempts to circumvent the clear intent of WAC 173-200.]⁴

My time is up.

Transcript from May 21, 1997 Public Meeting

Speaker 14: Greg Wingard

4 [While the order makes some provisions for USTs and fuel facilities, there are no soil limits or groundwater limits in the order that would be applied later. Studies required in groundwater limits for USTs are specifically addressed in 173-200. The order attempts to shield Port of Seattle from meeting the requirements of WAC 173-200 and attempts to control ongoing releases that are part of industrial operations at the airport under MTCA. This is an inappropriate use of MTCA. Discharges from facilities that are part of industrial operations of the airport must be covered by NPDES permit for surface water discharges and a State Waste Discharge permit for groundwater discharges.]4

While these are some of the major issues there are of course fine print issues as well.⁷ [The finding of facts in the order states that there could be unknown areas of contamination in the aircraft operations and maintenance area – in fact this is almost certain. It then goes onto say it is not practical to conduct a remedial investigation. The reasons they conclude: thick concrete, lots of underground utilities, safety risks to aircraft and people, drilling could spread contamination, and costs would be prohibitive. These facts are bogus. Investigations have already been done at some of the sites in the AOMA. Wells have been drilled, samples have been taken. The Port of Seattle and airport tenants did not find themselves precluded from investigation by any of the problems mentioned in the order. Instead of such a broad and to some extent false statements being made as statements of fact - there need to be specific findings based on actual site conditions. Concrete can be slant-drilled under, utilities can be located and provisions made to avoid hitting them. Specific safety plans to mitigate dangerous conditions and set limits on data collection to mitigate cost.

What are the facts behind these three findings in the order? Finding the nature and extent of contamination at waste sites is fundamental to designing or even pretending to design appropriate remedial measures. This order cripples addressing airport pollution before the process even starts.⁷ [It is amusing that the order defines Miller Creek as a receptor while eliminating consideration of the waste sites that are in the vicinity of Miller

Creek.] While there are many more specific issues, that's about it for now. With one exception, that being [the end of the order that exempts review to the Pollution Control Hearings Board is also inappropriate, because if this was in the form of a permit action like under WAC 173-200 that would be appealed to the Pollution Control Hearing Board. So this takes issues that the public has a right of appeal on and shields the Port of Seattle from that right of appeal. That is highly inappropriate and should not be allowed, and I believe is beyond Ecology's discretion.]

That's it.

Comments of Greg Wingard, Staff

*CASE
PO Box 4051
Seattle, WA 98104-0051*

5-21-97

*Comments on the AOMA agreed
Order public hearing*

I would like to thank you for showing up for this public hearing and listening to the concerns of the residents and activists working on pollution related issues at SeaTac Airport.

Public process indadequate

1 [This order has been the subject of negotiation between Ecology and POS for at least the last two years. In spite of the massive impacts this order has to the way cleanups happen, the way groundwater is regulated and the way public involvement will be conducted the public was never at the table. To open the door now and let the public in to take a quick look at the deal that has been cut is inadequate, inappropriate and violates the spirit and intent of MTCA which is the basis of the order.] 1

4 [POS gets the benefit of an agreed order which makes the whole airport a MTCA site, eliminates application of a State Discharge permit for groundwater from consideration for any of the operational facilities with the exception of the IWS lagoons.] [It also gives POS the benefit of an agreed order and a paid position while allowing POS and its tenants to continue doing independent cleanups with no public participation. MTCA says that Agreed Orders and paid positions require that a public participation plan be in place. This has been a major issue with the public for some time and Ecology has on numerous occasions been made aware of this.] 2

3 [The modeling approach is defective. While groundwater data (quantity based not quality) will be collected from around the airport, groundwater chemical data will only be collected from some sample locations in the AOMA. The airport and vicinity data will be used to generate a model on groundwater movement. Historical data on spills and AOMA chemical sample data will be used to provide source information for the model. Since the order

specifically eliminates defining the nature and extent of contamination the model will be defective as it will describe contaminant transport from the described source locations without considering the actual extent of contamination. We have watched POS use models for air and noise. Both models were found to be defective. It is not much of a surprise that they were defective in a way that benefited POS. With the ambiguity involved in this model and POS history the idea that a consultant to POS is going to find that pollution is discharging to a receptor is beyond my comprehension. No doubt it would be the last job they did for POS.

5 [The order fails to protect public resources and illegally permits disposal activity. The order says that if pollution from the AOMA is not discharging to a receptor, that no further studies are necessary. No further wells would have to be placed. This would of course result in abandoning waste in the sub surface soil and groundwater which would allow POS and tenants to use sub surface soils, perched groundwater and the Qva aquifer as a disposal facility with no permits and little control. 5] [While the order attempts to define the receptors as the only waters of concern or protection zones, all groundwaters are waters of the state, that is a public resource belonging to the public, not POS, the airlines and fuel suppliers. 4] [WAC 173-200 is clear that discharges to groundwater must be regulated as close to the source as possible with the point of compliance being the entry point of waste into the groundwater. The order attempts to circumvent the clear intent of WAC 173-200.

While the order makes some provisions for underground storage tanks and fuel facilities, there are no soil limits or groundwater limits. Studies required and groundwater limits for UST are specifically addressed in WAC 173-200. This order attempts to shield POS from meeting the requirements of WAC 173-200 and

attempts to control ongoing releases from facilities that are part of the industrial operation of the airport under MTCA. This is an inappropriate use of MTCA. Discharges from facilities that are part of the industrial operation of the airport must be covered by a NPDES permit for surface water discharges and a Waste Discharge permit for groundwater permit.] 4

10 [The order limits the area of concern and potential action to 1/2 square mile. Information has been supplied to Ecology that shows large volumes of waste including chlorinated solvents were disposed of for decades out side of the AOMA. The order eliminates consideration of potential sources of contamination that could be at least as great a threat to health and safety as the AOMA, as trichlorethylene turns into vinyl chloride, far more toxic than TPH and potentially much closer to a receptor of concern Des Moines Creek than the waste in the AOMA.] 12 [The setting of priorities for site selection and cleanup should be part of a public process, not predetermined with no public input.] 1

While these are some of the major issues, there are of course fine print issues as well. 7 [In the findings of fact in the order, it states that there could be unknown areas of contamination in the AOMA (in fact this is almost certain). It then goes on to say that it is not practical to conduct an RI. The reasons include thick concrete and lots of underground utilities. Safety risk to aircraft and people. Drilling could spread contamination and costs would be prohibitive. These facts are bogus. Investigations have already been done at some of the sites in the AOMA, wells have been drilled and samples taken. POS and airport tenants did not find themselves precluded from investigation by any of the problems mentioned by the order. Instead of such broad and to some extent false statements being made as statements of fact there need to be specific findings based on actual site conditions. concrete can be slant drilled under. Utilities can be located. Specific site safety

plans can mitigate dangerous conditions and some limits on the extent of data collection can mitigate costs. Where are the facts behind the 3 findings in the order? Finding the nature and extent of contamination at waste sites is fundamental to designing or even pretending to design appropriate remedial measures. The order cripples addressing airport pollution before the process even starts. [7] [8] It is amusing that the order defines Miller Creek as a receptor while eliminating consideration of any of the waste sites in the vicinity of Miller Creek. [9] While there are many more specific issues, this is it for now.

Mr. Roger Nye
Northwest Region
Department of Ecology
3190 160th Avenue SE
Bellevue, WA 98008-5452

RECEIVED
JUN 16 1997
DEPT. OF ECOLOGY

June 12, 1997

Re: AGREED ORDER #97TC-N122

Dear Mr. Nye:

These comments are provided to you as part of the public comment period related to the above order. The comments are made for the record. The comments are presented under the headings used in the order for your reference. Comments on the order apply to the relevant section of the public participation plan and comments on the plan apply to relevant sections of the order.

I. Jurisdiction

4 [The jurisdiction of this order is not applied appropriately as the order covers matters that are already subject to existing law and permits. For example, discharges from operating facilities are covered by this order issued under the Model Toxics Control Act (MTCA). Discharges from operating facilities, such as fuel facilities, painting, repair, cleaning and other facilities within the AOMA are already covered by existing law and permits. Discharges to surface water are covered by the Clean Water Act (CWA) and are subject to an existing National Pollution Discharge Elimination System (NPDES) permit. 4] [The order and fact sheet offer no information to the public on the effect of the order on existing requirements of the NPDES permit or requirements of the CWA. As such Department of Ecology (Ecology) has made it unreasonably difficult for the public to determine the impact of the order on the CWA and NPDES permit and comment on the same. 6] [Discharges to ground water from existing facilities are covered by WAC 173-200, the Ground Water Quality Standards and are subject to an yet to be issued State Waste Discharge permit. 4] [The order and the fact sheet offer no information to the public on the effect of the order on the requirements of WAC 173-200. As such Ecology has made it unreasonably difficult for the public to determine the impact of the order on WAC 173-200 or the required State Waste Discharge permit and to comment on the same. 6] [The order allows the Port of Seattle (POS) to use a groundwater model to show that subsurface releases related to facilities at the airport have and should not migrate beyond the boundary of airport property. The order by its terms

would allow POS to use the subsurface soil, perched aquifer and the Qva aquifer as disposal facilities. This is beyond Ecology's authority (and the orders cited jurisdiction) to do through the mechanism of this order and contrary to law.]⁵

II. Findings of Fact

1. No comment

2. ²[The order indicates that independent cleanup or investigation activities are underway at a number of facilities within the AOMA area covered by this order. These independent activities are being carried out illegally as Ecology has for some time and is currently making use of a "paid position" to oversee the investigation and cleanup activities. Under MTCA a paid position can only be used where there is an agreed order in place and such an order requires a community participation plan. No such plan exists for the investigations or cleanups under way in the AOMA and this order does not include a community participation plan that covers the specific cleanup activities on a site specific basis as the law requires. Ecology can not issue an order to condone an illegal activity.]²

⁷[The order states that it is not practicable to conduct a remedial investigation of the entire AOMA to identify unknown contaminated areas because of concerns related to drilling, safety risk, the potential to spread contamination and the costs. Although not stated in the order specifically, the order also removes the burden from POS of determining the nature and extent of contamination for past, existing and ongoing releases. This finding of fact is unacceptable and acts to shield POS from legitimate costs any Potentially Liable Party should pay to determine the nature and extent of contamination caused by their activities. Extensive drilling has already occurred in many of the AOMA areas, any exemption from drilling to determine the nature and extent of contamination should be on a case by case basis not by unsupported fiat through this order. Safety risks can be addressed by an adequate Health and Safety Plan and once again such exclusions should be based on specific information, not unsupported generalities. Like wise there are specific state regulations regarding the requirements for drilling wells that minimize the potential for spreading contamination. It would appear from this finding of fact that Ecology would advocate never drilling investigative wells as there is always some potential for providing a preferential pathway for the spread of contamination. In regard to

costs, no estimate of costs required to investigate contamination of the AOMA have been provided, no showing has been made that the costs, whatever they might be would impose a financial hardship on POS or its tenants. Even if such an effort would be cost prohibitive it does not provide an excuse to allow POS to abandon any effort to determine the nature and extent of contamination from the presently known or suspected facilities or contaminate sources. This finding of fact presents a gift to public and private parties while placing the public at risk and should be rejected as written.]⁷

3. ¹¹[All groundwater is assumed to be a potential source of drinking water under WAC 173-200. There is also evidence from existing consultant reports in your possession that the perched aquifer and the Qva aquifer recharge the deeper aquifer systems which are in fact known drinking water supplies. In order to protect the drinking water aquifers, Ecology must use conservative assumptions which would require changing this finding of fact to indicate that drinking water supplies may suffer potential impact. At least one consultant report in Ecology's possession offers this conclusion.]¹² The section also fails to consider and give equal weight to the potential of utility bedding materials and the perched aquifers to transmit contaminants to surface water receptors without using the Qva aquifer as a transport mechanism.]¹² This comment also applies to 4 (b), below.
4. ¹³[Section (b) would confirm the predominant flow direction of the Qva aquifer relative to the AOMA. The information needed is the specific flow of contaminants relative to the aquifer and the flow of the Qva aquifer in relation to those contaminants. Section (b) is not protective of human health or the environment.]¹⁴ [Section (c) is not adequate and must be changed to add as receptors all waters of the state, which under WAC 173-200 include all groundwater.]¹⁴ [Section (d) suggests that the study could provide a consistent approach to AOMA cleanup actions. This finding is so vague as to be unintelligible and as such must be removed or clarified in such a manner as to allow public comment on whatever it is Ecology means by the statement.]¹⁴
5. ⁶[This section is defective as it fails to inform the public that UST systems at the airport are also covered by WAC 173-200. Section 5., must be corrected to add the requirements of WAC 173-200 for USTs and associated piping and inform the public how this order impacts those requirements.]⁶ [It also fails to impose the requirements of

WAC 173-200 on UST systems at the airport. This a failure to meet a non-discretionary duty. What is meant by the statement "As part of a project concerning groundwater quality...", which appears at the end of this section? 15

III. Ecology Determinations

1. No comment
2. 16 This section is directly in conflict with information provided by Ecology to the public and violates the stated intent of the order. The facility should be the AOMA, not the whole airport as this section states. The definition is overly broad and does not meet the goals or objectives of the order. 16 The definition covers many operating facilities that are covered by other laws and permits including federal law, that are not appropriately covered or under the jurisdiction of this order. 17 This determination is confusing as Ecology has told the public that the order is to address the AOMA. 16
3. No comment
4. No comment
5. 17 Was the letter provided pursuant to this order or some other action?

What is the specific context the letter was provided for? 17
6. No comment
7. The foregoing are not accepted as facts due to numerous errors, omissions and distortions.

IV. Work to be Performed

This section fails to identify WAC 173-200 requirements or how this order would meet such requirements.

1. 10 This section is not adequate as it arbitrarily and without reason excludes known sources of major contamination, including the Olympic Tank Farm and outfalls that were used to dispose of virtually all

airport non-domestic waste during the 1940s to the time the Industrial Wastewater Treatment Plant was constructed in the 1960s.

Information on these sources is available and has been provided to Ecology. No information is provided or standards set for how information and data will be screened and validated for inclusion in the model.

2. 1 [There are no provisions for the public to have any input on the selection of wells that are "representative", this is not acceptable as it excludes the public from critical portions of the process and decision making. This is contrary to the intent of MTCA which requires the public be afforded input into each stage of the cleanup process and decision making involved with Agreed Orders.] 1
3. 19 [This item is vague, lacking in definition needed to allow adequate comment. What does the term "appropriate data" mean and how is it selected?] 19
- 18 [What process will be used for Quality Assurance/Quality Control to assess data collected over a large amount of time under various protocols and standards and determine the amount of error or non-compatibility that will be tolerated?

How will the variance in data sets be measured and defined in such a manner as to determine its impact on the model outputs? 18

4. 4 [The order states that Ecology and POS will evaluate... data and agree to a scope of work... for activities agree necessary. This section appears to allow POS a veto for data collection and studies that are required by WAC 173-200. It is inappropriate for Ecology to use this order to compromise the requirements of existing state law. The order also fails to clearly state (as mentioned previously) the need to collect data to establish the nature and extent of contamination from existing sites. The order replaces fairly well defined RI/FS requirements with vague statements about a combination of old data, data from existing wells and perhaps if Ecology and the polluter agree maybe up to 10 or 15 new wells. This approach could easily result in major errors in the model as data points describing contaminant location intensity could be seriously out of date and mistaken assumptions about the leading edge of contaminant plumes or waste sources would yield serious errors in modeling the travel of contamination over time. This is of particular

concern as the whole point of this order as it has been related to the public is to determine the potential of contamination to travel over time to described (though inadequate) receptors. The order appears to be set up to develop a model with a high probability of yielding spurious or misleading results based on questionable data.] 3

5. 6 [Explain how the described report time line complies with the requirements of WAC 173-200, related to studies required for known or suspected discharges to groundwater.] 6

6. 4 [The items covered in this section cover issues already covered by the existing NPDES permit and items that should be covered by the facilities State Waste Discharge permit, which will be issued during the upcoming permit cycle at the end of this month. It has been clearly stated to Ecology for at least the past 3 years that all discharges from ongoing industrial activities at the airport to waters of the state must be covered by permit as the law requires. This order, in part appears to be a clear cut attempt by Ecology and POS to defy the requirements of law and the will of the vast majority of the public surrounding the airport by substituting the order for portions of or all of the required permits.] 4 [As previously mentioned it would also allow the establishment of a defacto POS waste disposal site utilizing the perched and Qva aquifers.] 5 [For each of the items mentioned in this section explain which ones are already covered by an existing law or permit, and why the order is seeking to duplicate existing requirements.] 6 [The portions of this order that substitute for existing laws or attempts to eliminate the need to comply with existing law is clearly not in the public interest and is not protective of public health and the environment.] 4 [The wording on enforcement in section (b) is not appropriate.] 20 [I have personally witnessed gross violations of the law in fuel handling at the airport. The historic record show that from the time the airport opened there was ongoing persistent and often devastating violation of environmental regulations. In spite of the blatant violations, ongoing for five decades, Ecology (or its predecessors) have only fined POS once. This is a depressingly ineffective track record of enforcement.] 20 [All language in the order related to enforcement should clearly state the free ride is over and infractions will be rigorously prosecuted. Anything less is a continuing violation of the public trust.] 20 [Creating a permanent data base for all UST systems at the airport as stated in section (c), is a good idea. From personal experience as a contractor dealing with FAA and POS data on USTs and utilities at the airport, accurate information

related to existing and abandoned fuel storage and transmission systems does not currently exist. These comments apply to the following section (d) as well.

7. No comment

Terms and Conditions of Order

1. No comment
2. It is the purpose of these comments to notify Ecology that the order and portions of the order are inadequate and/or improper in many respects.
3. This section covers cost recovery and indicates that Ecology is collecting costs related to specific site cleanup actions as well as the more general requirements and non-site specific activities Ecology will carry out.² [Ecology indicated at the public hearing held on this order that Roger Nye is participating in a paid position, as he already has been doing for some time. It is improper for Ecology to be using a paid position for activities related to specific MTCA sites without a community relations plan in place. Ecology's practice of improperly using the paid position at the airport has been and continues to be detrimental to the public interest and has resulted in the public having no voice in any site cleanup decisions being made. The public right to input in the decision making process is clearly protected by law.]²
4. No comment
5. ² [The wording of this section includes additional evidence that the public participation plan fails to cover the scope of activities included in the order. Specifically, the last paragraph contains language applying to remedial actions under discussion or negotiation and makes it clear that such actions are covered by the scope of the order.]²
6. No comment
7. ² [This section is confusing and in error. The section says POS and Ecology shall prepare a public participation plan. The tense clearly indicates the future. A copy of a public participation plan has already been provided. Specific comments on the plan are included with these comments. Please explain why this section that has no obvious meaning

is included in the order, and correct the section to reflect reality.]²¹

8. ²²[Arrangements should be made with the community for permanent archival of records related to the order or other POS activities that impact the surrounding communities.]²²

9. No comment

10. No comment

11. ²³[Why is there no requirement for a notice to be placed on the deed, as is a standard requirement for most people who own contaminated property subject to Ecology MTCA orders?] ²³

12. ⁶[This section is not adequate as existing permits and law related to permits are not identified or addressed in this section or in Section IV. There is no reference to the CWA or WAC 173-200. There is no reference to the requirements of the existing NPDES permit. Ecology fails to inform the public of how the proposed order will impact, interact with or otherwise effect Ecology's duties under the CWA, the implementation of and reissuance of the site NPDES permit and the State Waste Discharge permit that is required by law, but Ecology has failed to implement. This is a clear defect in the order and a failure to inform the public of impacts Ecology intends to impose on the public by this order.]⁶

VI. Satisfaction of this Order

No comment

VII. Enforcement

No comment

PUBLIC PARTICIPATION PLAN

²[The plan is inadequate as it does not cover specific cleanup actions being carried out at sites in the AOMA. These sites have for some time and continue to be subject to a paid position held by Roger Nye. It is clear that MTCA requires such sites to be covered by an agreed order and a public participation plan, specific to each MTCA site. This order does not meet that requirement by limiting public participation to the

general activities covered by the order and excluding public participation from the specific sites. ²³ The plan makes unwarranted or erroneous assumptions for example in section 1.0 it states, "Much is already known about groundwater and the contamination beneath the AOMA." In fact a more accurate statement would be much is unknown about the groundwater and contamination underneath the AOMA. There are a number of reports and data available but much of the information is out of date and the reports do not support a single set of conclusions but present some level of contradiction and uncertainty. ²⁴ Another example from the same paragraph, "However, in order to confirm that the contamination is not a threat...", a clear assumption that contamination at the airport is not a threat. This assumption is clearly in error as available information shows pollution released from the airport has on multiple occasions not just damaged, but destroyed all or virtually all life in Des Moines Creek. Existing environmental data collected as per the requirements of the airport NPDES permit indicate that water quality is impaired in both Des Moines Creek and Miller Creek, with observed discharges from the airport playing a significant role in the degradation. ²⁴

⁵ The ground water study referred to is inadequate and fails to address a key public concern. While the study is alleged to be able to provide assurances about lack of risk to a narrowly defined set of receptors, it fails to address accumulation of fuel in the perched and Qva aquifers and the use of these groundwaters as a defacto disposal site for POS. In fact the order attempts to legitimize such accumulation and disposal, which has obvious benefits for POS, but is diametrically opposed to the public interest. ⁵

²⁵ The plan is inaccurate in that it gives the impression that a second phase of the study will occur. In actuality for the second phase to really happen several unlikely events would need to come about. The first is that the historic data and limited new field data collected would have to, through the model (run by POS), show a risk to the narrowly defined set of receptors. My comments at the public hearing and written comments above go into some detail as to why this is unlikely. Ecology and POS would then have to agree that the risk is "real" enough to warrant further work. The final step would be a negotiation between POS and Ecology to define the second phase of data collection and study. ²⁵ It is interesting to note that this order, which greatly benefits POS took Ecology over two years to negotiate. ²⁶ Ecology could theoretically, in the face of POS recalcitrance, force the issue by issuing an enforcement order imposing a second phase. Ecology's track record of lack of enforcement at the airport for the last five decades does not lead the public to have much confidence in use of enforcement as a viable option. ²⁶

¹⁴ Both the order and the plan state that the study outcomes "could (or would) provide

a basis for a consistent approach to cleanup actions within the AOMA.” This appears to be some kind of code phrase that has not been explained to the public in the order, fact sheet, hearing or plan.] From conversations with Ecology staff it appears that what this phrase actually means is that the study will be used to justify elimination of MTCA cleanup standards and allow the abandonment of waste in subsurface soils and groundwater. Confirmation of this assumption is provided in both the order and the plan as the stated purpose of the study is to “confirm” a lack of risk. This is a novel approach when coupled with the fact that Ecology has also started with an assumption that an RI/FS can not be done for the area where the waste is to be abandoned.] If Ecology is trying to use the study to waive the need for or substitute the study for an RI/FS, how are the substantive requirements of MTCA met?] 26

27 [The pollution prevention section of the order and plan lacks definition, context and is confusing to the public. Ecology has specific protocols and methods for pollution prevention. How does the pollution prevention referred to in the order and plan meet the requirements of Ecology’s pollution prevention program?] 27

6 [Pollution prevention and best management practices are required under the airport’s NPDES permit. How does the order integrate with, conflict with or otherwise interact with the NPDES permit?

There are specific requirements under WAC 173-200 regarding facilities with the potential for releases or with documented releases. How does the order integrate with, conflict with or otherwise interact with WAC 173-200?

There are specific requirements under the UST regulations for the fueling facilities at the airport. While this is the one applicable regulation that Ecology does explain in the order, the nature of the interaction with other regulations clearly mandated by law is unclear and has not been defined or explained by Ecology. Please provide an explanation in writing to the public and allow public comment to provide an adequate level of public input as required by MTCA.] 6

2 [The section describing public participation and comment clearly states that the public is “given the opportunity to become involved in cleanup decisions.” and “The regulation requires “the early planning and development of a site specific public participation plan.” The order and public participation plan in fact accomplish exactly the opposite. POS has used its SEPA authority to minimize any public input under SEPA. POS and its tenants have carried out the cleanups of their MTCA sites at the airport as independent actions and thus avoided any public input. Ecology has allowed the independent actions to continue in spite of having a paid position in place for

oversight of the cleanups. MTCA clearly requires and agreed order and a site specific public participation plan for sites covered by a paid position. Ecology has allowed the independent cleanups overseen by the paid position to continue in spite of the lack of the required agreed order or public participation plan. The order continues this illegal activity by covering the cleanups in vague terms in the order, but only allowing public comment and activities related to the specific groundwater study and pollution prevention planning activities in the order, while providing no opportunity for site specific input. The order thus seeks to legitimize an illegal activity.]²

16[Under the section dealing with participants, the plan (and the order) are confusing. The plan states that POS has been identified as the PLP for this site. What does this site mean?

While the point of the order, study and plan is supposedly the AOMA, the order defines the site not as the AOMA, but as the whole airport. There is also no explanation as to why other generators, transporters and disposers are not PLPs.]²⁸

6[The plan states that Ecology and POS "shares a common goal of fostering a well informed public with a clear understanding of the ground water study and its relationship to other activities at the airport". The sentiment is appreciated, but at this point the relationship of even the basic elements of the proposed order to other activities, laws, regulations, permits and the requirements of MTCA are unknown in spite of repeated requests to Ecology for clarification and explanation. To say this goal is not being met is an understatement.]⁶

The goals of the plan are not adequate or complete. As stated else where,²[the order, study and plan fail to address requirements of public input into ongoing specific site cleanup, ongoing and potentially expanding disposal of fuel and waste in the perched and Qva aquifers] and [the relationship between the order and other existing federal and state laws, permits and requirements] to name a few.]⁶

2[The process section of the plan is inadequate as it limits public participation to only specific portions of phase one under the order but excludes ongoing site specific cleanup activities that MTCA clearly requires the plan to cover. The catch all phrase "any additional phases will be identified later" does not meet the very specific requirements of MTCA for the plan to cover ongoing specific site activities in the plan.]²

29[The required activities are incomplete and not in compliance with the requirements of MTCA] as described in multiple places throughout these comments. [The required activities have failed and as designed will continue to fail to provide the public with information required for informed input related to the interaction of the order with

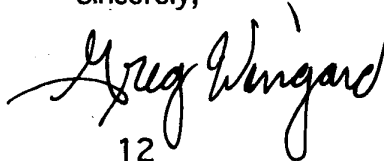
other laws and site cleanup activities which are ongoing. The lack in the order and plan is causing and will continue to cause harm to the community.]6

30 [The plan states that Ecology may modify the responsiveness summary based on POS comments. Any such changes should be clearly identified so the public can determine which responses or changes of response originated with POS. This information is required to allow the public to be informed so as to allow adequate public participation in decision making.]30

31 [The section on community concerns allows concern over the third runway to eclipse all other community concerns. While the third run way is a major public concern it is relatively recent. There is no mention of the five decades of community concern and action including letter writing, petitions, law suits (other than the most recent) and other activities. Some of this information has been made available to Ecology. The vast majority of public concern and action at this site has only recently had anything to do with the third runway.]32 [The paragraph on the two recent suits are inaccurate. The permit appeal action was the result of a local community based appeal. The Waste Action Project Clean Water Act suit was the result of an action by a state wide environmental organization. The only plaintiff in the federal suit was Waste Action project. One action was a state level appeal to the PCHB, the other a law suit in federal court.]33 [Your correction of these inaccuracies would be appreciated.]33 [The plan does not accurately state community concerns related to groundwater. The community is concerned about drinking water supply as an endpoint. The concern however is broader than just drinking water, including all waters of the state which include the perched aquifer and the Qva aquifer.]33 [The concern is two fold, first that POS is using the groundwater as a waste disposal facility and is abandoning waste there]34 [and second that the aquifers are interconnected with the lower drinking water aquifers and surface waters, acting to recharge them. There is at least one consultant report on file with Ecology that has data from wells confirming an observed interconnection.]34 [In the final sentence of the on page ten, it is recommended the following be added; , and are working on existing air, surface water, groundwater and soil pollution issues related to the airport. This addition will show respect for the effort the community is involved in on existing problems, having nothing to do with the third run way.]31

Thank you for the opportunity to provide comment on the order.

Sincerely,



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Greg Wingard, staff
CASE
PO Box 4051
Seattle, WA 98104-0051

Response to comments received from Greg Wingard on behalf of Citizens Against SeaTac Expansion (CASE)

Comments were presented orally and in writing at the Public Meeting on 5/21/97 and in a letter dated June 12, 1997.

Comment #1:

Public participation in this Agreed Order is inadequate and in violation of the spirit and intent of the Model Toxics Control Act (MTCA). This is inappropriate particularly since the Agreed Order has massive impacts to the way that cleanups happen, groundwater is regulated, and public involvement will be conducted. Rather than being excluded, the public should have been “at the table” during all stages of the Agreed Order when matters such as focusing on the AOMA of the airport and the selection of a representative set of wells were decided.

Response #1:

Response to this comment is provided in Part 1 of the Responsiveness Summary.

It must be realized that under cleanup regulations, the public participation process is more expeditious and perhaps does not afford the level of participation than the process does under other regulations so that remedial actions can be carried out in a timely manner as is often required. A second opportunity for formal public participation in this Agreed Order will be forthcoming when, considering the information provided in this Responsiveness Summary, the public is invited to provide comments on the results of Phase I of the Agreed Order and proposed actions for Phase II. It is not comprehensible and not true that doing a groundwater / contaminant transport model at Sea-Tac Airport could have the far-reaching ramifications stated in the comment.

Comment #2:

There must be public participation in all cleanup actions at Sea-Tac Airport instead of just in an Agreed Order for a groundwater study. This is required because the Port pays an Ecology staff person to oversee all cleanup actions at the airport, and as stated in the MTCA, a “paid” position requires an Agreed Order that includes a Public Participation Plan. The cleanup actions undertaken independently by the Port and its tenants at the airport are illegal and now must be included in this Agreed Order with public participation at all sites provided for in the associated Public Participation Plan as required by the MTCA. Language in Section V.(5.) of the Agreed Order indicates there are indeed remedial actions under discussion or negotiation with Ecology that are covered by the scope of this Agreed Order.

Response #2:

Response to this comment is provided in Part 1 of the Responsiveness Summary.

The Agreed Order utilizes information from the independent MTCA sites at the airport to model the behavior of contaminants. The Order does not include or impose requirements on the ongoing cleanup actions at the MTCA sites however, and the remedial actions at the sites will proceed independently at this time.

The comment appears to insinuate that the Port has Ecology staff on its payroll. There is no such arrangement and there is nothing stated in the MTCA about “paid” positions. There is however, a Department of Ecology Policy (Policy 500C, 1991) that provides for “Prepaid Cleanup Oversight”. Whenever Ecology provides oversight of its own volition for cleanup actions through an Agreed Order or Consent Decree, the state cost recovers on an ongoing basis from the potentially liable party (PLP) for Ecology staff time and other costs used in the oversight. Policy 500C allows a PLP to retain Ecology oversight of its cleanup actions by request. When Ecology’s oversight is granted upon request, one of the conditions is that the state cost recovers in advance from the PLP requesting the oversight (instead of on an ongoing basis). Thus Ecology’s oversight is “prepaid” in contrast to the normal procedure of state cost recovery. An Ecology staff person that works with a PLP under such an arrangement as per Policy 500C is a “prepaid position”. No money from a PLP for a prepaid position goes directly to Ecology staff or directly to the Department of Ecology itself. The Department of Ecology has had many prepaid position arrangements with various PLPs including the Port of Seattle.

Policy 500C specifically states that the policy is not intended to address Independent Cleanups where the PLP is not seeking Ecology oversight. Ecology encouraged, facilitated, monitored and provided technical assistance (as per the MTCA (WAC 173-340-130(3a)) and as per the Interagency Agreement for the airport prepaid position) regarding the independent cleanups at the airport. In compliance with Policy 500C however, Ecology did not provide direct oversight of the independent cleanups at Sea-Tac Airport.

Neither this Agreed Order, nor the fact that there have been prepaid positions at Sea-Tac Airport opens the door for public involvement in the independent cleanups there, and these cleanups are not illegal. Unless the regulations change, there remains no mechanism for formal public involvement in independent cleanups.

There is no language in Section V.5 of the Agreed Order that indicates there are remedial actions under discussion or negotiations with Ecology as the comment implies. Section V.5 states what qualifications personnel must have that do the work of the Agreed Order, that these personnel must be furnished a copy of the Agreed Order, and that the Port cannot perform any remedial actions outside those stipulated in the Order that would foreclose or preempt the actions stipulated in the Order.

Comment #3:

Although stating that “much is already known about groundwater and the contamination beneath the AOMA”, the Agreed Order actually eliminates defining the nature and extent of contamination when in fact, more is unknown about the groundwater and contamination than is known. There are reports and data available but much of the known information is uncertain, contradictory, inconclusive, and seriously out of date. The model is defective because it utilizes these data and attempts to describe contaminant transport from source locations where the nature and extent of the contamination has not been defined. The model thus relies on mistaken assumptions and questionable data that will yield spurious misleading results with serious errors in the contaminant modeling.

Response #3:

The nature and extent of contamination has mostly been defined at the known MTCA sites at Sea-Tac Airport and in many instances there has been considerable ongoing groundwater data collected over many years. Contaminant transport modeling in groundwater at these known sites will utilize this known information. The comment provides no rationale or specifics regarding its pronouncement that the known information is defective so further response regarding this issue is not possible.

The Agreed Order requires that potential areas of soil and groundwater contamination within the AOMA and its near vicinity be identified based on historical operations. It is true that the nature and extent of contamination in these potential areas will not be defined prior to contaminant transport modeling in groundwater. A modeling methodology to define contaminant source areas known as “particle tracking” will be utilized in the contaminant transport modeling in these potential areas. Appropriate worst case conditions in terms of the size of the source area and movement of contaminants in groundwater are assumed in this methodology. This methodology will sufficiently define locations to install wells and sample groundwater to determine impacts and evaluate risk from the potential source areas.

Comment #4:

The Agreed Order eliminates, circumvents, compromises, defies, substitutes for, replaces, conflicts with, duplicates, fails to impose, allows the Port to veto, and shields the Port from the application, clear intent, and requirements of other regulations, laws, and permits such as the Clean Water Act, WAC 173-200, NPDES permit, and State Waste Discharge permit. Specifically, the jurisdiction of the Agreed Order is wrong because it makes the whole airport a MTCA site and, except for the IWS, controls ongoing releases of hazardous substances from airport facilities such as UST systems through MTCA instead of through WAC 173-200 via a State Waste Discharge (SWD) permit. The application of WAC 173-200 and a SWD permit for airport facilities are required because there are specific requirements for USTs in this regulation, all groundwater is waters of the state, and discharges of waste to groundwater must be regulated at the entry point.

The Agreed Order is thus clearly an attempt by Ecology to defy the law and will of the public, a failure of Ecology to perform its non-discretionary duties, and it is not in the public interest or protective of public health and environment.

Response #4:

Ecology disagrees with this comment in its entirety. Response to this comment is provided in Part 1 of the Responsiveness Summary.

Comment #5:

The Agreed Order says that if the modeling shows that contaminants released to the subsurface from related facilities within the AOMA of the airport do not migrate beyond the airport property or pose risk to a narrowly defined set of receptors, then no further cleanup actions are required. The Agreed Order thus allows the Port to eliminate MTCA cleanup standards, abandon the existing waste in soil and groundwater at the airport, and

to “legitimately” use the soil, perched groundwater, and the Qva aquifer as a de facto waste disposal site with no permits or control. Confirmation of this assumption is provided in the Agreed Order and Public Participation Plan because the stated purpose of the groundwater study is to “confirm” a lack of risk while asserting that an RI/FS can not be done in the area where the waste is abandoned. It is beyond Ecology’s authority, contrary to law, illegal, and diametrically opposed to a key public concern to allow fuel and waste to go on accumulating and spreading in the subsurface at the airport.

Response #5:

Response to this comment is provided in Part 1 of the Responsiveness Summary.

Ecology agrees that it is contrary to law to abandon contamination in the subsurface at the airport without further consideration and that it is not acceptable if ongoing releases of fuel and waste from facilities occur. Ecology strongly disagrees that the Agreed Order facilitates these conditions that are contrary to law if the results of the groundwater study indicate there is no risk to receptors. The results of the Agreed Order will not eliminate the standards and requirements of the MTCA regarding the ongoing remedial actions at the existing MTCA sites or any new MTCA sites if discovered at the airport.

The statement in this comment that states: “The Order says that if pollution from the AOMA is not discharging to a receptor, that no further studies are necessary and no further wells would have to be placed” is incorrect. There is no language in the Order that states this notion. The Order states that follow up work including the installation of additional wells will be accomplished after the modeling is completed and that an Addendum describing this additional work will be written and presented for public comment.

Comment #6:

The Agreed Order, Public Participation Plan, and Fact Sheet provide no information how the Agreed Order effects, affects, impacts, interacts with, integrates with, and relates to federal and state laws, regulations, permits, activities, and cleanups such as the Clean Water Act, WAC 173-200, NPDES permit, State Waste Discharge permit, and MTCA. Ecology fails to achieve its stated goal in the Public Participation Plan of fostering a well informed public and, in spite of repeated requests for clarification, causes harm to the community by making it unreasonably difficult for the public to provide informed comment.

Ecology must provide clarifications and explanations, particularly of how the pollution prevention actions in the Agreed Order for UST systems integrate with the water quality regulations and permits, and allow further public comment. The explanations must specifically include how the Phase I report time line complies with the studies required in WAC 173-200 for known / suspected discharges to groundwater, which pollution prevention actions in Section IV.6 are already covered by an existing law or permit, and why the Order is duplicating existing requirements.

Response #6:

Response to this comment is provided in Part 1 of the Responsiveness Summary.

There are two components to the Agreed Order: (1) A groundwater study to evaluate if the contamination in groundwater at Sea-Tac Airport poses unacceptable risk to drinking water supply wells and surface waters near the airport. (2) Pollution prevention actions targeted towards underground storage tank (UST) systems to prevent further releases from these facilities, which have caused most contamination at the airport. The pollution prevention actions will apply to UST systems at the airport that are fully regulated under the Washington UST regulations (WAC 173-360), which mandate very specific requirements regarding the construction and operations of USTs. Pollution prevention actions will also apply to UST systems at the airport that, for various reasons, are not fully regulated under the UST regulations.

The pollution prevention actions applicable only to the fully regulated USTs are inspections by Ecology staff for compliance with WAC 173-360 and follow up actions to correct any deficiencies noted. Pollution prevention actions applicable only to the USTs that are not fully regulated are efforts to evaluate and implement on a voluntary basis best management practices (BMPs) for the operations of these USTs. Pollution prevention actions that apply to all UST systems at the airport include requirements for the Port to establish a database to track operations of all USTs at the airport and provisions to keep this database current.

The Clean Water Act, WAC 173-200, the NPDES permit, and State Waste Discharge permit are laws, regulations, and permits to initially prohibit and/or prevent contaminants from permitted discharges from exceeding applicable standards for contaminant concentrations in surface waters and groundwater. The Model Toxics Control Act is a law and regulation to clean up contamination in soil, surface waters and groundwater once it has occurred and the applicable standards for contaminant concentrations have been exceeded.

The groundwater study component of the Agreed Order is an investigative remedial action being done under the authority and requirements of the MTCA to address issues relevant to contamination in groundwater at the airport that has already occurred. The groundwater study has no relevance to the water quality requirements as per the comment, that are for the purpose of initially preventing contamination in surface waters and groundwater from occurring.

The pollution prevention component of the Agreed Order regarding requirements for the USTs that are fully regulated under WAC 173-360 and the water quality requirements as per the comment have the similar purpose of initially preventing contamination. The UST regulation, WAC 173-360, is the Washington state version of federal requirements for UST systems which, mandate very specific requirements and options for constructing, maintaining, preventing corrosion of, detecting and preventing leaks in, and permitting UST systems. These UST requirements are not related to and are not duplicated in the water quality requirements mentioned in the comment.

The pollution prevention component of the Agreed Order regarding efforts to evaluate and implement best management practices (BMPs) for UST systems that are not fully regulated is also for the purpose of initially preventing contamination. There is no authority under MTCA or the UST regulations to mandate specific BMPs for the unregulated USTs, and this can only be accomplished on a voluntary basis as per this Agreed Order. If proof were discovered of a current ongoing release from an unregulated UST system however, BMPs to stop and prevent further occurrence of the release could be required both under the water quality regulations and the MTCA.

Ecology did not purposely make it difficult for the public to comment. There are not the extensive effects, affects, impacts, and relations between the Agreed Order and federal and state laws, regulations, permits, activities, and cleanups that the comment implies. Furthermore, the public must assume some responsibility to inform and educate itself about the purposes and requirements of the various laws and regulations. The laws and regulations are available to be read by all, as are the responsiveness summaries for the regulations, which are helpful to understand the regulations. Also there are often citizens within the community that have professional knowledge and expertise that could be sought out to help the community with these issues.

Comment #7:

As a finding of fact, the Agreed Order states that unknown areas of contamination could exist within the AOMA but then states that it is not practicable to conduct a Remedial Investigation (RI) to identify the unknown areas of contamination. The reasons stated for this include (1) concerns related to drilling such as thick concrete, lots of underground utilities, safety risks to aircraft and people, and potential to spread contamination by the drilling, and (2) prohibitive costs. These findings and reasons should be based on specific, case by case, actual site conditions rather than on broad unsupported generalities.

The reasons regarding concerns about drilling are bogus because investigations that involved extensive drilling have already been done at MTCA sites within the AOMA, concrete can be slant-drilled under, and there are state well-drilling regulations with requirements that minimize the potential for spreading contamination. Furthermore, utilities can be located and provisions made to avoid hitting them, and adequate Health and Safety Plans can address safety risks. The reason of prohibitive cost is bogus because no estimate of costs required to investigate contamination of the AOMA was provided and no showing made that these costs would impose a financial hardship on the Port or its tenants at the airport.

This finding of fact cripples addressing airport pollution before the process even starts by shielding the Port from the legitimate costs any potentially liable party (PLP) should pay to determine the nature and extent of contamination caused by its activities, which is fundamental to designing appropriate remedial measures. The finding of fact is unacceptable because it presents a gift to the Port and its tenants while placing the public at risk and should be rejected as written.

Response #7:

Response to this comment is provided in Part 1 of the Responsiveness Summary.

The Agreed Order states that it is not practicable to conduct a remedial investigation of the entire AOMA. The word “practicable” is specifically defined in MTCA (WAC 173-340-200) and denotes a particular concept. As per the definition, “practicable” means “capable of being designed, constructed and implemented in a reliable and effective manner including considerations of cost”. Given the long operating history of the airport, finding all contamination throughout the entire AOMA would probably require a massive systematic drilling project. The mindset of this finding of fact is that it is not “practicable” (which means considering the environmental benefit compared with the accompanying cost) to find all contamination by such a project at this time since available information indicates that the known contamination does not appear to pose significant risk.

Ecology did not mean to imply however that its view is the remedial investigation (RI) process is forever precluded for the AOMA because of drilling problems and because it “costs too much”. For clarification, this finding of fact is changed in the final version of the Agreed Order by revising the language to say “it is not practicable to conduct a remedial investigation of the entire AOMA at this time”, and rather than the costs being prohibitive, they are not warranted. Ecology considers that the groundwater study is an appropriate interim and more immediate step that will evaluate the fundamental issue of whether contamination at the airport could pose risk to drinking water wells and surface waters.

The rationale expressed in the comment that Ecology’s concerns about drilling are bogus are relevant for drilling projects in confined, localized areas such as the MTCA sites. The rationale is not relevant or practicable when applied to a massive drilling project involving perhaps hundreds of holes (many penetrating to the Qva aquifer) throughout an area the size of the AOMA. There is “slant” drilling technology and drilling techniques to minimize the risk of cross contamination, but they increase the cost of drilling tremendously and are not always reliable. Methods to locate utilities are also expensive and not always reliable. The safety of aircraft and personnel can adequately be addressed during drilling in localized areas at specific times, but would be difficult during drilling on a sustained basis over the large area throughout the AOMA.

Comment #8:

It is amusing that the Order defines Miller Creek as a receptor while eliminating consideration of any of the waste sites in the vicinity of Miller Creek.

Response #8:

The comment does not identify what or where these “waste sites” referred to are, so it is not possible to provide a specific response to the comment. The STIA groundwater study will determine if contaminated groundwater emanating from the heavily industrialized

part of Sea-Tac Airport (the AOMA) could travel to and seep into Miller Creek via groundwater flow.

Comment #9:

The Agreed Order cannot be appealed to the Pollution Control Hearings Board as per Section VII.1.D. This is highly inappropriate and should not be allowed because it shields the Port of Seattle from the public's right of appeal on issues that would be appealed if the Agreed Order was in the form of a permit action like under WAC 173-200.

Response #9:

As stipulated in RCW 105D.050(5) and 105D.060, the mechanism for citizens to try and dispute an Ecology cleanup action is to sue Ecology in the courts. It must be demonstrated that Ecology's actions are arbitrary and capricious and/or the agency fails to perform a nondiscretionary duty. There is no provision for citizens to appeal Ecology cleanup actions to the Pollution Control Hearings Board (PCHB) and the law cannot be changed to accommodate an appeal of this Agreed Order to the PCHB. The Model Toxics Control Act came about as the result of a Citizen Initiative. The ability of citizens to appeal Ecology cleanup actions to the PCHB was purposefully not provided for in that process so Ecology could conduct cleanup actions expeditiously as is often required.

Comment #10:

The Order limits the area of concern and potential action to the ½ square mile area of the AOMA. This is not acceptable because there are significant potential sources of contamination outside the AOMA that have been excluded. These include the Olympic Tank farm, outfalls that were used to dispose of all airport non-domestic waste prior to construction of the industrial wastewater treatment plant, and in particular potential sources of chlorinated solvents, which could be as great a threat to health and safety as contamination in the AOMA. Ecology was provided with the information that shows large volumes of waste including chlorinated solvents were disposed of for decades outside of the AOMA.

Response #10:

Response to this comment is provided in Part 1 of the Responsiveness Summary.

As stated in the Agreed Order, the "AOMA" is a term used to describe the area of the airport where activities and facilities used to support aircraft operations are now and have historically been located, which is approximately the southeast quadrant of the airport. The Agreed Order recognizes that the AOMA may not have precise boundaries and stipulates in Section IV.1.(b)(1) that one purpose of the research conducted regarding the groundwater study is to identify known and potential areas of contamination within the AOMA and its near vicinity, which is defined as approximately within ¼ mile of the AOMA as established according to current information.

This study area will include the Olympic tank farm and should include the potential sources of contamination mentioned in the comment, but the scope of the Agreed Order

does not include direct releases to surface waters. Furthermore, in response to public concerns the research stipulated in the Agreed Order for potential sources of contamination will extend outside the AOMA within the operating airport to identify significant sources considered to have potential to impact the local receptors through groundwater flow. Ecology agrees with the concern about chlorinated solvents at Sea-Tac Airport, and one of the primary considerations for doing the STIA groundwater study was to evaluate this issue.

The information provided to Ecology consisted of a letter dated 11/12/53 written by State Representative Andy Hess and a letter dated 6/8/48 written by Laucks Laboratories (signed by J. M. Kniseley). Both letters were written to the State Pollution Control Commission (SPCC). The letter from Representative Hess points out an ongoing history (1946 – 1953) of petroleum products and aircraft washing fluids being disposed of in Bow Lake and Des Moines Creek and urges the SPCC to take stronger action against the Port to stop further contamination. The letter from Laucks Laboratories informs the SPCC that aircraft washing fluids are entering “a small creek” via storm sewers, and presents the chemical compounds (one compound is chlorinated solvent) that compose the washing fluids.

Comment #11:

All groundwater is assumed to be a potential source of drinking water under WAC 173-200, and this applies to the perched groundwater aquifer and the Qva aquifer at the airport. Additionally as reports in Ecology’s possession indicate, it is correct to assume that the deeper aquifers, which are known drinking water supplies, are interconnected with and recharged by the shallow perched and Qva aquifers and could be impacted by contamination from these shallow aquifers. Therefore the Agreed Order must be changed in places such as the finding of facts in Section II.3 and Section II.4.c to indicate that all groundwater at Sea-Tac Airport is a potential drinking water supply and is identified as a receptor that could suffer impact from contamination.

Response #11:

It is also appropriate to note that all groundwater, with minor exceptions, is assumed to be a potential source of drinking water under WAC 173-340, the MTCA cleanup regulation. The Agreed Order refers to the surface water bodies and drinking water supply wells near the airport as “potential local receptors”. For purposes of the Agreed Order, these “receptors” are considered the locations and means by which potential exposure of humans and other organisms to the contaminants in groundwater at the airport could take place. It is not relevant to the Agreed Order to make the changes requested in the comment.

Furthermore, it is not remarkable information that the Qva aquifer and the deeper aquifers are interconnected as the comment implies. There is no such thing as a perfect aquitard in nature and all aquifers are interconnected to some degree. What is relevant and will be considered in the groundwater study is the degree and locations of the interconnections and how groundwater flow and contaminant transport are affected relative to the potential local receptors.

Comment #12:

Section II.3 in the Agreed Order fails to consider and give equal weight to the potential of utility bedding materials and the perched aquifers to transmit contaminants to surface water receptors without using the Qva aquifer as a transport mechanism.

Response #12:

Section IV.1.b clearly states that one purpose of the research of “existing technical literature, environmental and geological reports, land-use data, airport historical information, and other appropriate documents” is to identify “potential preferred pathways of contaminant transport”.

Comment #13:

Section II.4.b in the Agreed Order states that the predominant flow direction of the Qva aquifer relative to the AOMA would be confirmed, but the information needed is the specific flow of contaminants relative to the aquifer and the flow of the Qva aquifer in relation to those contaminants. Section II.4.b is not protective of human health or the environment.

Response #13:

Contaminants in groundwater are transported by groundwater flow and they cannot have a “flow” of their own that is different than the flow of the groundwater. The comment provides no rationale why Section II.4.b is not protective of human health or the environment. This comment is vague and unintelligible and further response cannot be provided.

Comment #14:

The Agreed Order in Section II.4.d and the Public Participation Plan state that the study “could provide a basis for a consistent approach to cleanup actions within the AOMA”. This finding is so vague as to be unintelligible and it may be some kind of “code phrase” that has not been explained to the public. As such, the finding must be removed or clarified in such a manner as to allow public comment on it.

Response #14:

Current information regarding the behavior of groundwater at Sea-Tac Airport comes from small-scale investigations at a few separate MTCA sites within the AOMA of the airport and from large-scale studies that, for example, encompass south King County. Current information regarding the transport of contaminants in groundwater at the airport comes only from the small-scale investigations at the MTCA sites within the AOMA. The known information is essentially two-dimensional. It is necessary to understand the behavior of groundwater and contaminant transport three dimensionally and on a scale of the AOMA to accomplish the purposes of the groundwater study.

The new information generated from the groundwater study could be pertinent to and be considered in the approach to and conclusion of cleanup actions throughout the AOMA since the information will be on that scale, thus possibly resulting in consistency in those cleanup actions.

Comment #15:

The meaning of the statement: “As part of a project concerning ground water quality at STIA, however, it is appropriate to evaluate the feasibility of additional pollution prevention activities regarding all UST systems at STIA” that occurs at the end of Section II.5 in the Agreed Order must be provided.

Response #15:

The driving concept behind the Agreed Order is to protect and preserve the quality of groundwater entering the surface waters and drinking water supply wells near the airport. The stated purpose of the first component of the Order, the groundwater study project, is to evaluate risk possibly posed by the contamination in groundwater at the airport to nearby surface waters and to public and private drinking water supply wells. The results of the project will enable selected and appropriate remedial measures in addition to those that are ongoing to be determined and implemented if required, to prevent contamination in groundwater at the airport from reaching these receptors.

The second component of the Agreed Order consists of pollution prevention actions targeted at underground storage tank (UST) systems. Since the groundwater study component of the Agreed Order addresses existing contamination (primarily from UST systems) in groundwater, it is appropriate that the second component of the Order consists of actions to prevent future contamination in groundwater from UST systems.

Comment #16:

The Agreed Order and the Public Participation Plan (PPP) are confusing in regards to the applicability of the Agreed Order as described by usage of the words “facility” and “site”. The PPP states that the Port is the potentially liable person (PLP) for this “site” while Section III.2 in the Agreed Order states that the “facility” is the whole airport. Ecology has informed the public that the Agreed Order applies only to the AOMA of the airport and Section III.2 conflicts with this information, does not meet the goals or objectives of the Order, and violates the stated intent of the Order.

Response #16:

The commentor’s confusion is understandable. The terms “facility” and “site” are identical in meaning and have several meanings as defined in WAC 173-340-200. Various meanings of these terms include “any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly owned treatment works), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, vessel, or aircraft; or any site or area where a hazardous substance, other than a consumer product in consumer use, has been deposited, stored, disposed of, or placed, or otherwise come to be located”. Furthermore, there are standard formats for Agreed Orders and Public Participation Plans, and some of the standard language in these formats that didn’t exactly fit this Agreed Order was inadvertently included in the draft versions of the Agreed Order and PPP.

As per Section III.2 in the Agreed Order, it is appropriate to designate the whole airport as the “facility” the Order applies to since the groundwater study will encompass the

whole airport. In the PPP, the “site” referred to many places actually means the “project” (i.e. the groundwater study). Usage of the terms “facility” and “site” was appropriately changed various places throughout the final versions of the Agreed Order and PPP to more accurately apply to this particular Agreed Order. These changes are identified in Part 3 of the Responsiveness Summary.

Comment #17:

Information is requested concerning the context and purpose of the letter described in Section III.5 in the Agreed Order whereby the Port of Seattle voluntarily waived its rights to notice and comment and accepted Ecology’s determination that the Port is a “potentially liable person”.

Response #17:

When initiating a formal cleanup action, Ecology is required to notify in writing the potentially liable person (PLP) of their status as a PLP and of Ecology’s intent. Once notified in writing by Ecology, the PLP then has the opportunity to respond back in writing to this notification. A PLP also has the option of accepting their status as a PLP through a voluntary written waiver of their right to notice and comment. The letter referred to in the comment was the Port of Seattle’s acceptance of PLP status specifically for this Agreed Order and the voluntary waiver of its right to notice and comment as per WAC 173-340-500 (5).

Comment #18:

The following information is requested regarding data that will be used in the modeling: (1) The setting of standards for how information and data will be screened and validated for inclusion in the model. (2) The process that will be used for quality assurance / quality control to assess data collected over a large amount of time under various protocols and standards and determine the amount of error or non-compatibility that will be tolerated. (3) The measurement and definition of the variance in data sets in such a manner as to determine its impact on the model outputs.

Response #18:

Technical information such as the comment requests will be provided in the Phase I report of the groundwater study, which will be open to formal public comment.

Comment #19:

Section IV.3 under Ecology Determinations in the Agreed Order is vague and lacking in the definition needed to allow adequate comment. In particular it is unclear what the term “appropriate data” means and how it is selected.

Response #19:

Section IV.3 simply states that a groundwater flow and contaminant transport model will be developed utilizing appropriate data as described in Section IV.3.1 (a)(b)(c)(d) and Section IV.3.2 that will be acquired. It also states that the purpose of the model is to evaluate the possibility that contamination within the AOMA could impact local receptors, and that the model will use standard software and methodology. This section

is straightforward and it is not clear to Ecology how it is vague and lacking in definition or could be improved. The comment fails to specifically state why the section is vague and lacking in definition except to question what “appropriate data” means and how it is selected. Appropriate data are the data needed to provide input to and construct the model and these data are selected according to the requirements of the model. The specific data used to provide input to and construct the model and how the data were selected will be provided in the Phase I report of the groundwater study.

Comment #20:

The language in Section IV.6.b in the Agreed Order, which states that enforcement of the requirements for underground storage tanks (USTs) will be conducted as appropriate, is not appropriate. Ecology’s lack of enforcement at the airport over the past five decades does not impart public confidence that conditions of the Agreed Order such as compliance with the (UST) regulations or conducting a second phase of the groundwater study would be enforced if necessary. All language concerning enforcement in the Agreed Order should clearly state the “free ride” is over for the Port, and that infractions will be rigorously prosecuted, otherwise it is a continuing violation of the public trust.

Response #20:

Ecology does not concur that there has been a lack of enforcement unique to Sea-Tac Airport. In general, Ecology’s approach to enforcement at any time is determined by the existing laws, regulations, authority, policies, and resources available to the agency at that particular time. Current policy stipulates that Ecology is to pursue negotiations before resorting to enforcement actions, and also that there are set procedures to follow when conducting enforcement specifically regarding violations of the UST regulations. Furthermore, enforcement is generally driven by unique circumstances on a case-by-case basis, and it is not appropriate to provide language in advance stating what enforcement actions would be before actual violations occur.

Comment #21:

Section V.7 in the Agreed Order states that the Port and Ecology shall prepare a Public Participation Plan (PPP) indicating in the future, when in fact a Public Participation Plan has already been prepared and provided. Section V.7 is therefore confusing, in error, must be corrected to reflect reality, and an explanation provided why the section is included in the Order when it has no obvious meaning.

Response #21:

Indicating futurity is not the only meaning or usage of the word “shall”. The word “shall” is also used to express a directive or requirement, which usage does not include a time connotation. The word “shall” is used in this manner throughout much of Section V.7 in stating most of the terms and conditions of the Agreed Order along with the requirement to prepare a Public Participation Plan.

Comment #22:

Arrangements should be made with the community for permanent archival of records related to the Agreed Order or other Port of Seattle activities that impact the surrounding communities.

Response #22:

The comment pertains to Section V.8 in the Agreed Order, which stipulates a requirement for the Port to preserve in a readily retrievable fashion all records, reports, documents, and data pertaining to the Agreed Order for 10 years. All potentially liable persons (PLPs) under Agreed Orders with Ecology have a similar requirement as per WAC 173-340-850. The comment appears to request that Ecology and/or the Port make special arrangements with surrounding communities for a mechanism to permanently archive all material pertaining to this Agreed Order and also all other material pertaining to activities at Sea-Tac Airport of significance to the communities. This ostensibly could include automatically providing separate copies of these materials to the surrounding communities and perhaps even providing a place for storage of the materials.

Ecology cannot provide the public service of furnishing outside record repositories in general, nor can it require PLPs to provide this service. Materials regarding this Agreed Order and other actions under Ecology's purview at Sea-Tac Airport and elsewhere in the agency's Northwest Region are stored at the Northwest Regional office in Bellevue for ten years after which the materials are sent to the state archives. These materials are available for public review and copying (for a charge) at the regional office and also at the state archives. Materials regarding this Agreed Order and other actions involving the Port are also available for public review and copying at Port offices as per the Port's policies for records disclosure and copying.

Comment #23:

An explanation must be provided as to why there is no requirement for a notice to be placed on the deed, as is standard requirement for most people who own contaminated property subject to Ecology MTCA orders.

Response #23:

The "notice" mentioned in the comment is ostensibly a "restrictive covenant", which is a document that alters or amends a property deed by limiting the use of the property and/or prohibiting particular uses. Restrictive covenants are required whenever Ecology makes a formal determination through an Agreed Order, Consent Decree, or through the Voluntary Cleanup Program for an independent cleanup action that a remedial action is complete and that circumstances as described in WAC 173-340-440 exist. These circumstances are (1) Residual concentrations of hazardous substances exceeding Method A or B residential cleanup standards remain at the property. (2) Conditional points of compliance have been established. (3) A restrictive covenant is required to assure the continued protection of human health and the environment and integrity of the cleanup action.

The concept of a restrictive covenant is irrelevant to this Agreed Order. The results of the groundwater study could be considered in the remedial actions for cleanup in the various areas of contamination at the airport, but the scope and intent of the Order itself does not include completing cleanup actions in these areas. Cleanup has to be completed before a restrictive covenant can apply.

Comment #24:

The Public Participation Plan makes unwarranted, erroneous assumptions as exemplified by a statement in Section 1.0, which states that "... in order to confirm that the contamination is not a threat, now or in the future, a more comprehensive understanding of the groundwater beneath the airport is appropriate". This statement is erroneous because available information shows pollution released from the airport has on multiple occasions damaged or destroyed virtually all life in Des Moines Creek. Also, existing data collected in Des Moines Creek and Miller Creek as per requirements of the NPDES permit indicate that water quality in these streams is impaired and degraded as a result of observed discharges from the airport.

Response #24:

As stated clearly in the Agreed Order, the focus of the groundwater study is to evaluate risk possibly posed by contamination in groundwater at Sea-Tac Airport to public and private drinking water supply wells and to surface water bodies near the airport via groundwater flow. The releases of pollution mentioned in the comment were either direct releases of hazardous material directly into Des Moines Creek, or releases of hazardous substances in storm water runoff into the streams, neither of which has anything to do with the groundwater study. The comment incorrectly combines two unrelated scenarios as rationale for the identified statement in the Public Participation Plan as being erroneous.

Comment #25:

The Public Participation Plan is inaccurate because it gives the impression that a second phase of the groundwater study will occur. A second phase of the groundwater study would only occur if the study demonstrated risk to the defined receptors, Ecology and the Port agreed that the risk was "real" enough to warrant further work, and the Port was not recalcitrant to do further work. These events are very unlikely given the various fallacies, defects, and devious purposes of the Agreed Order.

Response #25:

Section IV.4 in the Agreed Order (under Work To Be Performed) clearly states that, additional investigation activities (STIA Groundwater Study, Phase II) agreed necessary based on the results of Phase I of the groundwater study will take place. The Agreed Order is a legal document binding on both Ecology and the Port, and a Phase II of the groundwater study consisting of follow-up actions of Phase I must and will take place. At a minimum, the results of the modeling must be confirmed by additional well data.

Comment #26:

An explanation must be provided as to how the substantive requirements of the Model Toxics Control Act are met if Ecology is trying to use the groundwater study to waive the need for or substitute the study for a Remedial Investigation / Feasibility Study (RI/FS).

Response #26:

The groundwater study does not waive the need for or substitute for the cleanup process required under the MTCA in the known individual areas of contamination at the airport. It does not appear that the RI/FS process on the scale of the entire AOMA is warranted at this time, but the information generated by the groundwater study could have relevance to that issue. The groundwater study is one process that will contribute information to a large body of environmental data that already exists regarding contamination at the airport. Other processes that have and will contribute information to this large body of environmental data include cleanup actions associated with the various MTCA sites, environmental investigations related to airport construction activities, and investigations required by the underground storage tank (UST) regulations (WAC 173-360) for the closure UST systems.

Comment #27:

The pollution prevention sections in the Agreed Order and Public Participation Plan lack definition, context, and are confusing to the public. An explanation must be provided as to how the pollution prevention referred to in the Order and plan meet the requirements of Ecology's pollution prevention program, which has specific protocols and methods for pollution prevention.

Response #27:

Ecology's pollution prevention program's fundamental principle is to prevent pollution whenever there is an opportunity. The pollution prevention actions in the Agreed Order do exactly that targeted towards underground storage tank systems at the airport.

Comment #28:

An explanation must be provided as to why other generators, transporters, and disposers at the airport are not designated as PLPs (Potentially Liable Persons) in the Agreed Order.

Response #28:

The Port of Seattle is a PLP because the Port is the property owner and because of "inherited" liability for releases caused by Pan American Airlines, which went bankrupt. Various tenants at the airport such as airlines and rental-car companies have caused most contamination by releases from facilities operated by them, and they are the PLPs for their own specific areas of contamination. Because the groundwater study will include a larger area that encompasses many specific areas of contamination and also possible areas of unknown contamination, the Port assumed sole responsibility as the PLP for this Agreed Order given the Order's particular purpose and intent.

Comment #29:

The required activities specified in the Public Participation Plan are incomplete and not in compliance with the requirements of the Model Toxic Control Act.

Response #29:

Required activities for public participation in cleanup actions are specified in the MTCA law (RCW 70.105D.030(2)(a) and regulation (WAC 173-340-600). Required activities include (1) Establishment of regional Citizen's Advisory Committees (a broad requirement not specific to individual cleanup actions). (2) Public notice of proposed cleanup actions by specified means. (3) Holding public meetings. (4) Publishing of a site register that describes happenings regarding various cleanup actions and (5) Development of Public Participation Plans. Ecology carried out all of the required activities for this Agreed Order. The comment fails to specify why the required activities specified in the Public Participation Plan are incomplete and out of compliance with the requirements of the MTCA, so further response to this comment cannot be provided.

Comment #30:

The Public Participation Plan states that Ecology may modify the Responsiveness Summary based on comments made by the Port of Seattle. Any such changes should be clearly identified so the public can determine which responses or changes of responses originated from the Port in order to allow adequate informed public participation in decision making.

Response #30:

The Responsiveness Summary is solely Ecology's product and responsibility, and as such the agency will determine whether or not comments provided by the Port alter and/or are included in the final Responsiveness Summary. The requested information will not be provided in the Responsiveness Summary. If the Port elects to provide its comments on the draft Responsiveness summary in writing, then that material would be public information.

Comment #31:

The Public Participation Plan (PPP) inaccurately implies that community concerns over the Third Runway eclipse all other community concerns regarding Sea-Tac Airport. The PPP must be corrected to indicate there have also been five decades of ongoing community concerns and actions about various other issues regarding Sea-Tac Airport. Specific language that states "and are working on existing air surface water, groundwater, and soil pollution issues related to the airport" should be added to show respect for the effort the community has made on problems not related to the Third Runway.

Response #31:

The "Community Concerns" section of the Public Participation Plan was changed to reflect the general gist expressed in the comment, although not precisely in the language the comment requests.

Comment #32:

The language in the Public Participation Plan (PPP) stating that local communities filed two legal actions against the Port of Seattle is inaccurate. The PPP must be corrected to indicate that one legal action (a permit appeal) was by local communities, while the other legal action (a federal Clean Water Act suit) was by a statewide environmental organization, the Waste Action Project.

Response #32:

The Public Participation Plan was changed to indicate more current circumstances, which is that several legal actions have been filed against the Port. It was not considered germane to the PPP to relate details of the various legal actions.

Comment #33:

The Public Participation Plan inaccurately states that community concerns regarding groundwater relate to the potential for contamination to impact drinking water. The community is concerned about drinking water as an endpoint, but the concern about groundwater is broader than just drinking water and includes the potential for contamination to impact all waters of the state, which include the perched aquifer, Qva aquifer, and the deep aquifers at the airport.

Response #33:

The comment is noted. The issues expressed in this comment have been addressed elsewhere in the Responsiveness Summary in responses provided to Mr. Wingard and other commentors. The language in the Public Participation Plan accurately states that a plurality of concerns about groundwater have been voiced by the public including in particular, concern about the potential for contamination to impact drinking water.

Transcript from May 21, 1997 Public Meeting

Speaker 4: Arlene Brown

5 I'm an engineer and have carefully correlated my diarrhea and cramps to contained fuel leaks and uncontained fuel leaks at the airport. I have done this somewhat in retrospect in that what would happen after the diarrhea and cramps & c on the weekend, I'd be reading the newspaper and found out oh "we had a contained fuel leak earlier this week". No wonder that's why I'm sick. I also have doctor reports if you'd like - the giardia after the fuel leak that killed a fish in Miller Creek. 5 And I'll give those to you if you'd like them.

I kept raising my hand to ask this question. 4 "Does the model reflect the peat bogs and multiple seismic anomalies in the area on the airport property?" The Miller Creek study, for instance, shows that a twenty-foot stick could go into the creekbed like a straw in a milkshake. So much for your forty-foot nice thickness. So the question is "Does your model reflect the actual geology around the airport? Also, you will notice that in the FEIS it refers to a 1952 soil study in the area that it says it feels is obsolete because so much of the property is excavated and has so much fill that it is no longer valid.

So my question to you is, "Do you have a valid soil study in order to even make your model here?" 4

Water flows. This study has very little credibility. 2 To ignore the outflows is ridiculous. We have known violations on outflows, and if you go by outflow #7 any day of the week on S. 154th St near the towers that have the lights on it you can look at the 5"-6" wide grease and oil is coming out. 2 That will be covered in the following person's discussion. 1 "Why aren't you considering the parking lot that was planned for on top of the well head? Why aren't you looking at SASA, which puts maintenance much closer to the wells on the south side?" 1

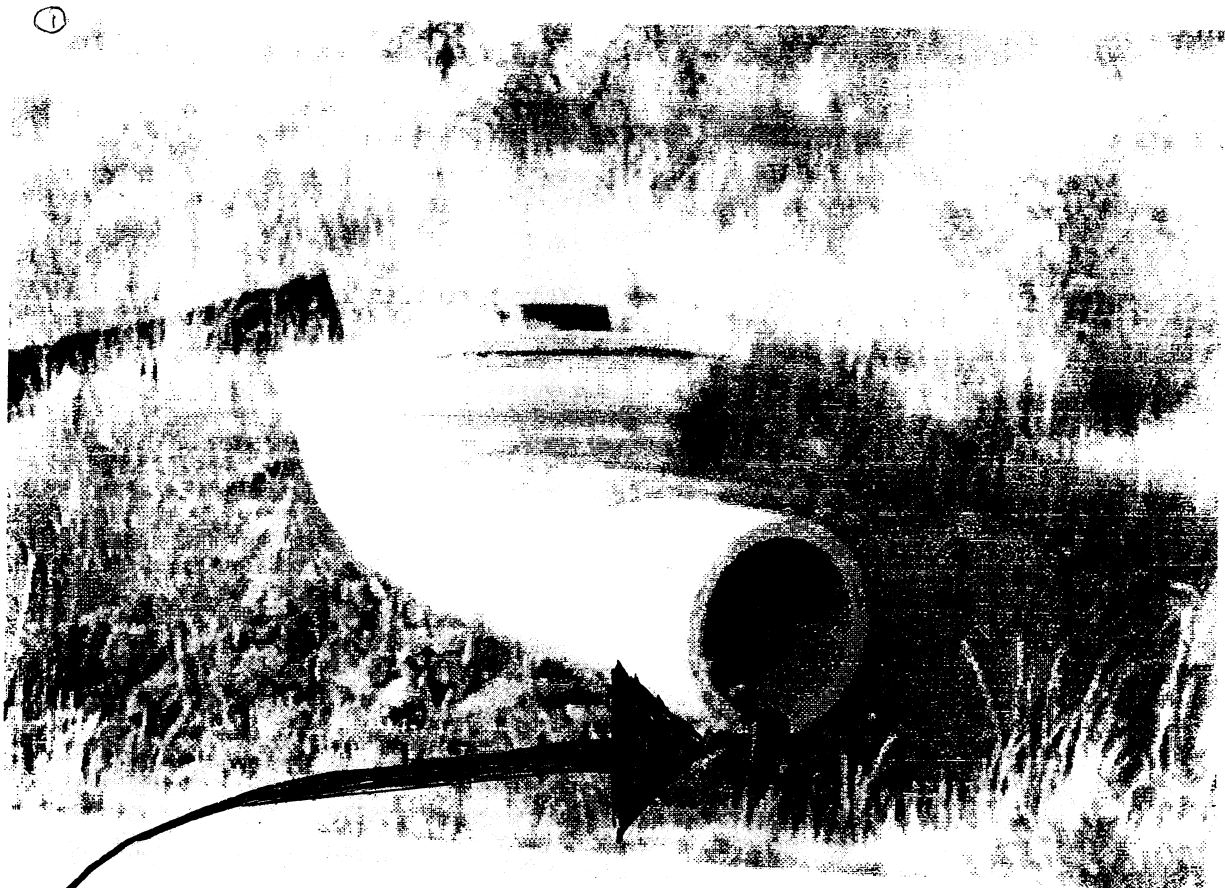
I would like to say, that it is really up to you what happens. This can be like most of the studies done improperly with the wrong model, with the wrong inputs. Or you can do a real study which you are probably not going to do with the funds you've got right now - and certainly not the one you've lined out right now. Thank you.

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No impact on Ground Water ?



2 [Seattle-Tacoma International Airport Outfall 007 (SDN 2)

Location : Just south of well head that supplies **drinking water** to the Seattle area,

- south side of S154 St near landing light towers on north end of airport
- approximately 2000 feet southwest of Reba Detention facility

According to EPA NPDES Form 3510-2F :

- Receiving water : **Miller Creek** via Reba Lake
- Pollutants include **grease** and **oil** as well as possibly **glycols**

Photographed 19 May 1997 in dry weather] 2

① Actual photograph enclosed

A. Brown
239 SW 189 PI
Seattle, WA 98166
8 June 1997
Page 2 of 4 (including cover page)

Dept. of Ecology
3190 160th Ave SE
Bellevue, WA 98008
(425)649-7251

Attention : Mr. Roger Nye

Subject : Comments on DOE and Port of Seattle Agreement for Ground Water
Study at Airport

These comments are in addition to those made at the 21 May 1997 public meeting at the Burien library and do not replace those comments.

1 [The limited scope and nature of the study will yield overly optimistic results. It will not identify the magnitude of the existing water pollution or provide sufficient basis to predict the contamination levels if the Third runway is built.] 1
The Expert Noise panel in theory was not suppose to be addressing the Third Runway but in the end their results were twisted and applied to the Third runway. 1
[This study needs to openly address Master Plan Update impacts.] 1

Detailed Study Area Too Small

3 [The detailed study area needs to be expanded to include the fuel depot, outfalls, Lake Reba and all significant pollution sites related to the airport.] 3
2 [How can you ignore outfalls? See photograph of oil and grease on cover.] 2

1 [Study needs to address ground water Location changes

Construction including vast quantities of fill have already apparently changed ground water paths as evidenced by it bubbling up for the first time in new locations west of the airport during recent storms. The impact of putting about 80,000,000,000 pounds (**80 billion pounds - this is not a misprint**) of fill needs to be evaluated considering the damage a tiny fraction of that has already caused.] 1

4 [Accurate Soil Characteristics Needed for Model input

The models need to be reviewed to determine if they can realistically handle the peat bogs and seismic anomalies in the area. If the models do not reflect the uniqueness of the soil they will underestimate the pollution.

According to the Master Plan Update FEIS, the 1952 soil study is out of date. A new soil study is needed to obtain accurate data for the water modeling. Various excavation, land fill and demolition activities have occurred in the area changing the ground characteristics. The proposed construction projects will further change the composition of the soil and create a huge hole in Des Moines.]⁴

1[Study needs to consider planned construction

SASA maintenance facility
North parking lot on the well head
Master Plan Update including moving miles of creeks
Excavation of over 12 million cubic yards of fill around airport
etc.]¹

3[Study and Model Need to Reflect actual conditions

Age of equipment and lines (probable leaks)
The absence of the required detention liner for over 20 years
Existence of about 500 abandoned underground tanks with oil
Contamination around Walker Creek discussed at May 21 Public Hearing
The release of untreated ethylene glycol and propylene glycol]³
(Port agreed to revise EIS that erroneously reported that glycols were treated)

5[Study needs to identify impact of jet fuel leaks to drinking water

Careful correlation of diarrhea and severe cramps with "contained" jet fuel leaks and uncontained jet fuel leaks leads me to believe the aquifer is currently being contaminated by the airport. Has the Burien water main been contaminated?
The scope of the study needs to be expanded to prove what my body has learned the hard and painful way.]⁵

2[Request timing of samples be specified

A minimum set of sampling intervals and conditions need to be specified in order to ensure a meaningful study. This should include conditions such as
1) storms without deicing
2) storm samples taken at the beginning, middle and then end of a deicing period
3) samples within 30 minutes of heavy rain after a dry period]²

6[Request Citizen Group sampling be permitted

Add provisions to allow citizen groups, namely CASE and RCAA, to obtain samples on Sea-Tac Airport property and arrange for tests. These can be in conjunction with tests planned as a part of this study but also at other locations and times such as at the outfalls that are not currently addressed.]6

5[Need Long Term Drinking Water Impacts

The maps indicating 10 year capture zones around wells near to be changed to the reflect the normal life expected, in the absence of Sea-Tac airport contamination, such as 100 to 200 years.]5

7[Comments on 21 May 1997 Public Meeting

The numerous large yawns of a particular government representative (whose name I've left off intentionally) appeared indicative of the attitude toward the comment process. The large yawns were very distracting during the formal comment period.

It also appeared that certain government representatives were intentionally verbose, stalling so as provide the public less opportunity to ask questions and make comments. Numerous people in the audience commented on this as we left the meeting. I raised my hand almost every time during the question and answer period but was not given the opportunity to ask any questions.

Unavailability of Agreement to Review

The document was not available to review at the Valley View Library as announced in the newspaper. Also, it was only available in one local library even though the drinking water impacts the entire Seattle area, not just the airport area.

Inadequate review time considering review processes conflicts

There was inadequate review time considering the Master Plan Update SEIS, the EPA NPDES permit and this Ground Water Study document all need to get reviewed at the same time.]7

Sincerely,

A. Brown

A. Brown

Pager (206) 654-1533

Home (206) 431-8693 or you may reach me through the CASE or RCAA offices

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(1 of 2)



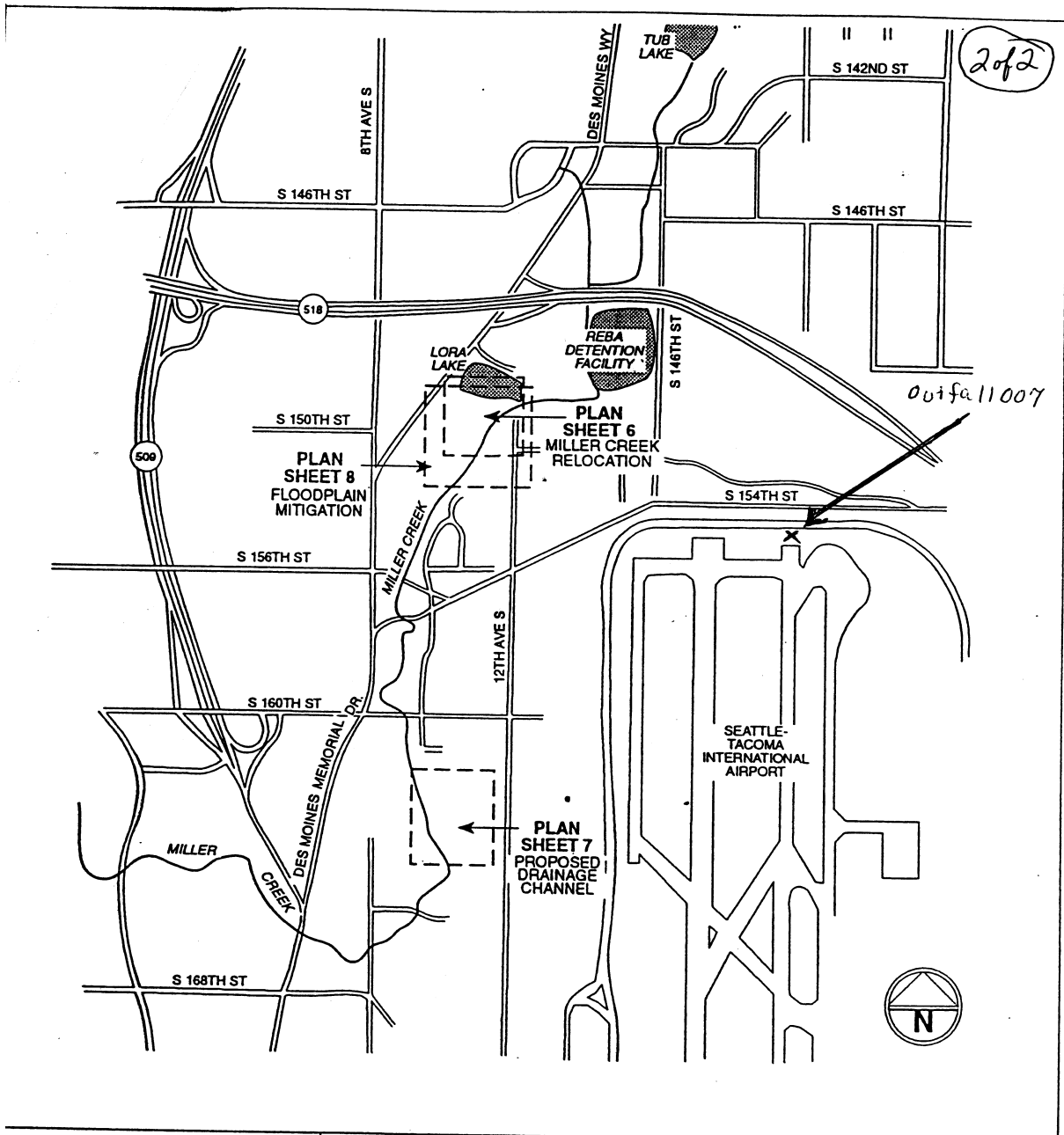
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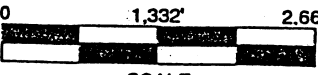
5/20/97
outfall 7

Copy of polaroid photograph passed around
Room at Burien Library Public Meeting by
Derek Brown on May 21, 1997. Same
outfall as A. Brown comments but
photographed one day later on 20 May
1997.

Derek Brown
239 SW 189 PL
Seattle WA 98166
10 June 1997

FROM: "Miller Creek Relocation Plan for Proposed Master Plan Update Improvements at Seattle-Tacoma International Airport"; Parametrix Inc. Dec 1996



| | | |
|--|---|---|
| <p>PURPOSE: IMPLEMENTATION OF THE MASTER PLAN UPDATE SEATTLE-TACOMA INTERNATIONAL AIRPORT</p> | <p>MILLER CREEK RELOCATION VICINITY MAP</p>  <p>SCALE</p> | <p>PROPOSED MILLER CREEK RELOCATION</p> <p>IN: SECTION 20, TOWNSHIP 23N, RANGE 4E COUNTY OF: KING STATE: WA APPLICATION BY: PORT OF SEATTLE SHEET 5 of 44 DECEMBER 1996</p> |
|--|---|---|

Response to comments by Arlene Brown

Comments were presented orally at the May 21, 1997 Public Meeting and received in a letter dated June 8, 1997.

Comment #1:

The scope of the study is too limited and must be expanded to include effects from planned construction activities at Sea-Tac Airport such as:

- (1) Groundwater location changes caused by the fill in third runway construction
- (2) Master Plan Update impacts including moving miles of creeks
- (3) SASA maintenance facility
- (4) North parking lot on the well head
- (5) Excavation of over 12 million cubic yards of fill around the airport

Response #1:

Part 1 of the Responsiveness Summary provides response to this comment.

The Agreed Order is a remedial (cleanup) action project that addresses contamination in groundwater at Sea-Tac Airport, and must be done under State cleanup law, the Model Toxics Control Act. Environmental effects caused by construction activities are not “cleanup” issues and are more appropriately addressed through other regulations and processes such as SEPA, EISs, the 401/404 Permit, etc. The scope of the groundwater study will not be expanded to include effects on groundwater flow possibly caused by airport construction activities, although it is possible that the hydrogeological information and the groundwater model derived from the Agreed Order could be useful in separate evaluations of possible construction.

Comment #2:

The study must not ignore storm-water outfalls. Two attached photographs taken 5/19/97 and 5/20/97 show oil, grease, and possibly glycols flowing out of Outfall 007. The times and conditions for sampling the outfalls should be specified in the Agreed Order and include sampling: (1) without deicing, (2) beginning, middle, and end when deicing occurs, and (3) within 30 minutes of a heavy rain after a dry period.

Response #2:

Pollution in storm-water runoff at Sea-Tac Airport is not dealt with through a “cleanup” process such as the Agreed Order, but rather through a “prevention” process which is the NPDES Permit for the airport. Only if the effluent from a storm-water outfall consisted of elevated concentrations of contaminants that persisted over a long duration could there be possible contamination in the vicinity of the outfall itself that required cleanup actions.

It is alleged that photographs of Outfall 007 presumably taken from S. 154th Street outside the controlled area of the airport, show a black fluid that is “oil and grease” emanating from the outfall for at least a two-day period. Outfall 007 was examined up close within a few days of the public meeting during dry weather. A small stream of clear water constantly flowed out of the pipe. The bottom of the inside of the pipe and its outside edge was stained black by an organic growth where the pipe was always wet.

Soil in the ditch below the pipe was examined for evidence of contamination and none was found. Outfall 007 was reexamined up close from time to time throughout the summer of 1997 and there was always the black staining on the pipe and a small, constant flow of clear water coming out of the pipe. The constant water flowing from the pipe is probably caused by subsurface perched water infiltrating into the piping system.

The scope of the Agreed Order will not be changed to include storm-water runoff issues.

Comment #3:

The study and model need to include and reflect all significant pollution sites and conditions related to the airport including:

- (1) Lake Reba
- (2) The fuel depot
- (3) Aging, leaking equipment and lines
- (4) Absence of the required detention liner for over 20 years
- (5) Existence of about 500 abandoned underground tanks with oil
- (6) Contamination around Walker Creek as discussed in the 5/21/97 public meeting
- (7) Release of untreated ethylene glycol and propylene glycol

Response #3:

The fuel depot, outfalls, and Lake Reba are described as being “significant pollution sites” in the context of the comment. There are not sufficient rationale for describing Lake Reba and outfall locations as significant pollution sites requiring cleanup actions under the MTCA, and these places will not be considered in the modeling as areas of known or potential groundwater contamination. The groundwater study will include the fuel depot (Olympic tank farm) and other fuel facilities at the airport.

Cleanup activities at Lagoons 1 and 2 indicated that contaminated soil beneath the lagoons had little depth extent and that the past absence of detention liners had not caused significant groundwater contamination. The lagoons will not be included as contaminant source areas for groundwater in the contaminant modeling. The 500 abandoned underground tanks mentioned in the comment are presumably the residential heating oil tanks located in the Port buyout areas. In response to formal concerns about these tanks raised by Representative Karen Keiser, Ecology evaluated this situation ahead of and outside the Agreed Order. Ecology’s formal response to Representative Keiser regarding these tanks is included in the Responsiveness Summary in the response to her letters. Based on that evaluation, the locations of these tanks will not be considered as areas of potential groundwater contamination in the model.

Ecology does not recall that contamination around Walker Creek was discussed in the May 21 public meeting, nor is Ecology aware of contamination around Walker Creek that has come from the airport. It was alleged in the public meeting that “waste sites” are in the vicinity of Miller Creek, but no specific information was provided regarding what and where these “waste” sites are. The release of glycols at the airport is primarily a storm-water issue addressed by the NPDES Permit. The Agreed Order will consider the behavior of glycols in the subsurface environment however.

Comment #4:

A new soil study is needed to determine accurate soil conditions for input to the water model, or the pollution will be underestimated. The model must account for peat bogs, seismic anomalies, and effects on the soil (such as changes in composition and a huge hole in Des Moines) caused by airport construction activities.

Response #4:

The modeling will simulate groundwater flow and contaminant transport in three dimensions in the “saturated zone” which begins at depth with the regional water table, or Qva aquifer. The modeling will not simulate groundwater or contaminant movement in the “unsaturated (vadose) zone” which extends from the surface down to the Qva aquifer. It is already known that contamination can reach the Qva aquifer from particular facilities, and this represents the “worst case” situation at the airport. Peat bogs, seismic anomalies, and effects on the soil caused by airport construction activities are not relevant to the model. Sufficient information regarding the hydrogeologic parameters of the geologic units in the saturated zone required by the model is available, and a new study to determine soil conditions will not be done.

Comment #5:

The study needs to determine both current and long-term impacts to drinking water caused by contamination at the airport. There is evidence that drinking water is currently contaminated (in particular the Burien water main) because the commentor experiences diarrhea and severe cramps whenever there is a jet fuel leak at the airport. The 10-year capture zones of the public wells near the airport need to be changed to reflect how long the wells would last in the absence of contamination at Sea-Tac Airport.

Response #5:

The groundwater study will determine if the contamination at Sea-Tac Airport could cause current and/or long-term impacts to drinking water supplies. There is no conceivable pathway whereby a spill of jet fuel at the airport could travel to and through a public water-supply system and then appear in private homes a short time after the spill and cause subsequent cramps and diarrhea to residents. Contamination in groundwater moves very slowly in the subsurface, and the speed of this movement is described in terms such as feet per year. There is no evidence that drinking water is currently contaminated. It is recommended that if the commentor believes the water in her home is causing health problems, she should contact the Seattle King County Health Department.

Capture zones are computed for public water wells as a requirement of the Wellhead Protection Program administered by the State Department of Health. A “ten-year” capture zone represents the area surrounding a public water well whereby if contamination were released into the aquifer that the well pumps from in that area, the contamination would reach the well in ten years via groundwater flow. Capture zones are computed based on hydrogeologic conditions, not on contamination from specific sources. The groundwater study will compute the capture zones of the public water wells near the airport, and evaluate the potential for contamination in groundwater at the airport to enter these zones.

Comment #6:

Provisions to allow citizen groups (CASE, RCAA) to do sampling on Port property and arrange for tests should be added to the Agreed Order. Citizen sampling could be done in conjunction with the sampling done as part of this study, but would need to be done at other locations and times as well.

Response #6:

There will be no sampling during Phase I of the Agreed Order. During Phase II of the groundwater study a sampling scenario will be determined, and the comment can be addressed once that determination is made.

Comment #7:

The public meeting and comment process for the Agreed Order were objectionable because:

- (1) An unnamed government representative yawned at the public meeting, which demonstrated an inappropriate attitude towards the comment process.
- (2) Government representatives were verbose at the meeting, which was intentional stalling in order to provide the public less opportunity for questions and comments.
- (3) The document was not available to review at the Valley View Library as announced in the newspaper, and it was only available in one library in the airport area even though the drinking water impacts the entire Seattle area.
- (4) There was inadequate review time considering the Master Plan Update SEIS, the EPA NPDES permit and the Ground Water Study document all needed review at the same time.

Response #7:

Showing signs of fatigue does not indicate a disdainful or otherwise inappropriate attitude towards the comment process on the part of government representatives. Government representatives were not intentionally verbose but were only trying to answer questions thoroughly and accurately. The intent of public meetings is to provide an opportunity for all that want to be heard however, and it is unfortunate if that didn't happen. At the end of the meeting however, the phone numbers of Ecology staff were provided and an invitation extended for anyone to call if they had further questions. No calls were received.

An Ecology staff person hand-delivered the Agreed Order documents to both the Valley View library and the Burien Library and spoke with library staff about the documents. When Ecology was notified that the documents were missing from the Valley View Library, a second set of documents was hand delivered.

Overall, the review time appeared to be adequate given that hundreds of comments were received during the standard comment period of 30 days. Furthermore, there were not numerous requests to extend the comment period.

Transcript from May 21, 1997 Public Meeting

Speaker 5: Arun Jhaveri, Mayor of Burien

I have nine specific comments, so without going through the formality, I'll go directly to those comments.

Comment #1:

- 1 [The legal document called "Agreed Order" containing a scope of work for the subject investigation by POS and DOE consultants must be modified to include a much larger, (roughly 5 sq. miles or 3200 acres) area of the airport than the one that can be identified in the scope of work as only a half square mile, or 320 acres (aircraft operations and maintenance area).] This is particularly significant in light of the Port of Seattle's proposed Master Plan and the future expansion.

Comment #2:

- 2 [DOE should clarify the apparent confusion between the voluntary nature of the legal agreement (the Agreed Order) with the POS and the mandatory requirements of the MTCA, chapter RCW 79.105D.] 2

Comment #3:

- 3 [We recommend that DOE and the POS appoint a citizen's advisory committee to monitor, review, and evaluate the consultant's work during Phase #1, which is about 15 months & Phase #2, which could take even longer, for additional groundwater monitoring wells, etc. This ad hoc committee will be an oversight body consisting of public, private, and non-profit organizations and/or agencies.]

Comment #4

We also recommend that this citizen advisory committee meet regularly and periodically, every 3 months, for example, with project consultants and staff of both the POS and DOE to analyze work in progress rather than wait for 15 months to receive final Phase #1 report.] 3 Any urgencies or emergencies identified must be immediately reported to DOE for correction during the course of both, Phase #1 & Phase #2 investigations.] 4 [The scope of work should clearly delineate as to who, how, and when the identified soil and groundwater contaminant(s) impact(s) will be mitigated, including the cost.] 4

("Comment #5" not stated)

Comment #6:

- 5 [The scope of work should clearly define what regulatory and enforcement steps will be implemented by the DOE so that the POS does prevent current and future pollution in the public and private drinking water supply wells as well as community surface water bodies, like Bow Lake, Des Moines Creek, and Miller Creek.] 5

Comment #7

- 6 [DOE should coordinate with the US EPA's federal requirements of the Clean Water Act, since the future proposed expansion of the airport is directly tied to the conditions required by the National Environmental Policy Act (NEPA) as well as Washington's own SEPA requirements.] 6

Comment #8

- 7 [There are a number of other specific questions regarding identification of underground collection points, stream flows, aquifer connections in the region that should] ?.. (time is up).

I'll have these comments in written form and I also want to give a copy of Sea-Tac International Airport Mitigation study. In section 2 there is a whole report on water resources and I think it would be very helpful for DOE and their consultants to read those. Thank you.



CITY OF BURIEN

415 Southwest 150th Street
Burien, Washington 98166-1973

Phone: (206) 241-4647
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Mayor
Arun Jhaveri

Deputy Mayor
John Kennelly

Councilmembers
Shirley Basarab
Kevin James
Kitty Milne
Sally Nelson
Don Newby

May 21, 1997

Ms. Marianne Deppman, Public Involvement Specialist
Washington State Department of Ecology (DOE)
Northwest Regional Office
3190 - 160th Avenue SE
Bellevue, WA 98008-5452

Re: Ground Water Environmental Study at Seattle-Tacoma International Airport

Dear Ms. Deppman:

Thank you for the opportunity to provide these comments. We appreciate the interest and willingness of the Department of Ecology to conduct these sessions. On behalf of the Burien City Council and the citizens of Burien, I take this opportunity to formally transmit the following comments, including my testimony at the May 21, 1997 Public Meeting at the Burien Library on the subject matter:

1. ¹ [The legal agreement (called an Agreed Order) containing the scope of work (SOW) for the subject investigation by Port of Seattle (POS) and Department of Ecology's consultants must be modified to include much larger (roughly 5 square miles or 3,200 acres) area of the airport than the one currently identified in the SOW as 1/2 square mile (320 acres) Aircraft Operations and Maintenance Area (AOMA).] This is particularly significant in light of the Port of Seattle's proposed Airport Master Plan and future expansion;
2. ² [DOE should clarify the apparent confusion between the voluntary nature of the legal agreement (Agreed Order) with the Port of Seattle and the mandatory requirements of the Model Toxics Control Act (MTCA) per RCW chapter 70.105D re State of Washington's hazardous waste cleanup laws with regard to the subject matter.] ²
3. ³ [We recommend that DOE and Port of Seattle appoint a Citizens' Advisory Committee to monitor, review and evaluate the consultant's work during Phase I (modeling ground water flow—15 months) and Phase II (drilling additional ground water monitoring wells, etc.) of the subject investigation. This ad-hoc committee will be an oversight body, consisting of public, private and non-profit organizations and/or agencies;
4. We also recommended that the Citizens' Advisory Committee meet regularly and periodically (e.g., every three months) with the project consultants and staff (both

Ms. Marianne Deppman
May 21, 1997
Page 2

- POS and DOE) to analyze the work-in-progress, rather than wait for 15 months to receive the final Phase I report.]³ Any urgencies or emergencies identified (e.g., public health impacts, water contamination, pollution, etc.) must be immediately reported to DOE for action during the course of both Phase I and Phase II investigations;
- 5.⁴ [The SOW should clearly delineate as to who, how and when the identified soil and ground water contaminants' impacts will be mitigated, including their costs.]⁴
- 6.⁵ [The SOW should clearly define what regulatory enforcement steps will be implemented by DOE so that POS does prevent current and future pollution in the public and private drinking water supply wells as well as airport communities' surface water bodies like Bow Lake, Des Moines Creek and Miller Creek.]³ and
- 7.⁶ [DOE should coordinate with the U.S. Environmental Protection Agency (USEPA)'s federal requirements of Clean Water Act, since the future proposed expansion of the airport is directly tied with the conditions required in the National Environmental Policy Act (NEPA), as well as our own State of Washington SEPA requirements.]⁶
- 8.⁷ [There are a number of other specific questions regarding identification of underground collection points, stream flows, data, aquifer connections in the region that should be built into the work program.]³ [This is an area where the oversight committee again could be beneficial.]³
- 9.⁸ [It is also not completely clear the connection between this project and the NPDES Permit that an active industrial site on the airport must have. Other independent cleanup actions have responsibilities also and what is their relationship to this project.]⁸

Thank you for the opportunity to discuss this project and present this testimony. We look forward to working with you on this issue.

Sincerely,

CITY OF BURIEN, WASHINGTON

Arun Jhaveri

Arun Jhaveri
Mayor

cc: Honorable Burien City Councilmembers
Frederick C. Stouder, Burien City Manager
Gina Marie Lindsey, Aviation Director, Sea-Tac International Airport

Response to comments by Arun Jhaveri, Mayor of the City of Burien on behalf of the Burien City Council and the citizens of Burien

The comments were presented orally at the May 21, 1997 public meeting and received in a letter dated 5/21/97.

Comments in this letter appear to request that a broad range of environmental issues at Sea-Tac Airport should be included in the Agreed Order and resolved by this one process. These comments recommend that the Agreed Order should address: (1) all cleanup at Sea-Tac Airport, (2) the prevention of possible current and future causes of pollution in groundwater and surface water at and near Sea-Tac Airport, and (3) environmental pollution issues associated with future expansion at Sea-Tac Airport. The purpose of the Agreed Order is straightforward. It is to determine if contamination in the Qva aquifer poses unacceptable risk to drinking water supply wells and to surface waters near the airport. This is an investigative cleanup action that should be accomplished and is appropriately addressed under the MTCA. It would be ideal if all issues regarding cleanups of all media and the prevention of all contamination to all media from all possible causes at Sea-Tac Airport could be dealt with for all time through one ultimate process. This is not possible however, and the Agreed Order cannot attempt to be such an ultimate process.

Comment #1:

The scope of work (SOW) for the Agreed Order must be modified to include a much larger (roughly 5 square miles or 3,200 acres) area of the airport than the one currently identified in the SOW as the 1/2 square mile (320 acres) Aircraft Operations and Maintenance Area (AOMA).

Response #1:

Response to this comment is provided in Part 1 of the Responsiveness Summary.

Comment #2:

Ecology should clarify the apparent confusion between the voluntary nature of the Agreed Order and the mandatory requirements of the Model Toxics Control Act per RCW Chapter 70.105D Re State of Washington's hazardous waste cleanup laws.

Response #2:

The Model Toxics Control Act (MTCA) mandates the general requirements regarding the cleanup process that apply to any potentially liable person (PLP) that must take cleanup actions because of contaminants that the PLP was responsible for releasing to the environment. The MTCA does not mandate the nature of Ecology's involvement in the cleanup actions that are being conducted by PLPs except that newly discovered contamination and cleanup actions must be reported to the agency, and Ecology must make an initial determination of the risk posed by newly discovered contamination. Under the MTCA, a PLP has the option to conduct cleanup actions independently without Ecology's direct involvement and oversight, but the requirements of the MTCA for cleanup must still be met.

Ecology does not have the resources to be directly involved and exercise oversight of all cleanup actions. Most cleanup actions (90%) take place independently and Ecology's role in these actions is in terms of reviewing and preserving documentation, database tracking, and rendering technical / regulatory assistance. It is Ecology's prerogative to select which sites and cleanup actions to be directly involved in. When Ecology exercises oversight and is directly involved in the cleanup actions of a PLP, a legal arrangement (Agreed Order or Consent Decree) is formalized with the PLP that specifies the cleanup actions that will be taken. Ecology can impose an Agreed Order or Consent Decree upon a PLP or conversely as per the MTCA, a PLP can request to do cleanup actions under an Agreed Order or Consent Decree. In the latter circumstance, the Agreed Order or Consent Decree could be considered as "voluntary". The decision to do the STIA groundwater study under an Agreed Order was a mutual decision by Ecology and the Port of Seattle.

Comment #3:

A Citizen's Advisory Committee consisting of public, private and non-profit organizations and/or agencies should be appointed to oversee the Agreed Order. As part of the oversight process, all involved parties should hold meetings every three months.

Response #3:

Response to this comment is provided in Part 1 of the Responsiveness Summary.

Ecology cannot subrogate its regulatory authority and oversight of this Agreed Order or any other formal actions to any outside group.

Comment #4:

The Scope of Work should clearly delineate as to who, how and when the identified soil and groundwater contaminants' impacts will be mitigated, including their costs.

Response #4:

It is not clear from the comment what is meant by "identified soil and groundwater contaminants' impacts". The comment could refer to the known MTCA sites. As per Part 1 of the Responsiveness Summary, Ecology has not elected to take over direct oversight of these ongoing independent cleanup actions that are on different time lines and being conducted by different PLPs.

The comment could refer to possible contaminant impacts that are identified as a result of the groundwater study. Phase I of the groundwater study could identify possible areas for further testing of groundwater and any actual testing will take place during Phase II. The SOW of the Agreed Order does not cover follow-up actions as required under the MTCA for any previously unknown contamination initially discovered during the Phase II testing. Ecology will determine its regulatory role in any such actions at that time. It is not possible to determine whom, how, when, and the cost of mitigating impacts before a full characterization of contamination has been accomplished.

Comment #5:

The Scope of Work of the Agreed Order should clearly define what regulatory enforcement steps will be implemented by DOE so the POS prevents current and future pollution in public and private drinking water supply wells and surface water bodies like Bow Lake, Des Moines Creek and Miller Creek.

Response #5:

There is no known current pollution from the airport in public and private drinking water supply wells as the comment states, and it is incorrect to assume at this point that there will be future pollution unless specific actions are taken to prevent it.

The purpose of the groundwater study is to assess risk possibly posed by known and potential contamination in the Qva aquifer to potential receptors via groundwater flow. The project is a remedial investigative action to address already-existing contamination as per the MTCA. It is beyond the scope of the Agreed Order to encompass all state and federal regulations and all best management practices that could apply to operations of all facilities at the airport to prevent the release of hazardous substances.

The Agreed Order does encompass the underground storage tank (UST) regulations (WAC 173-360) that mandate requirements for preventing releases from UST systems however, which have caused most contamination at the airport. Along with the MTCA, these regulations are implemented by Ecology's Toxics Cleanup Program. UST systems at Sea-Tac Airport will be inspected for compliance with these regulations as part of the Agreed Order. There are regulatory enforcement procedures that are established to insure compliance with the UST regulations and if violations of requirements are noted during the inspection and are not corrected in a timely manner, enforcement procedures could be involved. These procedures will not be specified in the Agreed Order however, making the assumption that enforcement is necessary and will be used. Furthermore the decisions made by Ecology in general regarding enforcement actions are on a case by case basis considering the unique circumstances of each incident after it has occurred. Specific enforcement actions cannot be prescribed before violations or releases occur.

Comment #6:

Ecology should coordinate with requirements in the federal Clean Water Act because future airport expansion is directly tied with requirements in the National Environmental Policy Act and the State Environmental Policy Act.

Response #6:

Environmental issues, including any applicable requirements of the Clean Water Act, in connection with future airport expansion, are outside the scope of the Agreed Order. There are no activities regarding the groundwater study project itself that would trigger requirements in NEPA and SEPA.

Comment #7:

There are questions regarding identification of underground collection points, stream flows, and aquifer connections in the region that should be addressed during the groundwater study.

Response #7:

To accomplish the purpose of the Agreed Order, a more comprehensive understanding of groundwater flow throughout the AOMA and a surrounding area is required. A groundwater flow model that encompasses a sufficiently large area that includes the airport and locations of the identified receptors will be constructed, and it will provide additional information and insight regarding hydrogeological conditions and groundwater flow.

Comment #8:

The connection between the Agreed Order and the NPDES Permit, and the relationship of the independent cleanup actions at Sea-Tac Airport to the Agreed Order should be clarified.

Response #8:

Part 1 of the Responsiveness Summary provides response to this comment.

There is no connection between the Agreed Order and the NPDES permit.

Contaminant transport modeling will evaluate the behavior of known and potential unknown contamination in the Qva aquifer. The groundwater study is an assessment of risk possibly posed by contamination in the Qva aquifer, and the data and results of the study could influence remedial decisions at the MTCA sites where independent cleanup actions are taking place. Risk assessment is an element in many facets of the cleanup process such as remedial investigation / feasibility studies, hazard ranking, restoration timeframe, selection of remedy, etc. The Agreed Order is not a mechanism whereby Ecology will assume oversight of the independent cleanup actions at the airport.

Transcript from May 21, 1997 Public Meeting

Speaker 6: Derek Brown

† [As we were driving by the airport - follow up on my mom's speech - she took a snapshot of the oil or grease coming out of Outfall 7. It looked like goo when I first saw it and when I brought it to my mom she told me it was grease & oil. I noticed, as we were crossing over a bridge and I looked down at a small creek like you normally see at Normandy Park. This one had a trail of black bubbles going across the top of it. As I followed the path up to see where it was leading to - it led right up to the pipe. And then I looked the other way to see where it was going because it always has to lead to something. I looked over and there was a little pond and that's what I took a snapshot of (pass it around).] ,

Received Public Mtg.
3/21/97 R/V₂

1 [As we were driving by the airport I noticed a pipe which had black goo oozing out of it. When I told my Mom, "~~Arlene Brown~~" She told me it was oil and grease. This pipe was outfall 3, it was merging into a stream that lead into a pond, a gray pond at that.]

I will come up again for the comment and Ancer section

Derek
Brown

Response to comment by from Derek Brown

The comment was presented orally and received in writing at the May 21, 1997 Public Meeting.

Comment:

Oil and grease were observed coming out of Outfall #7 that is part of the storm water drainage system at Sea-Tac Airport. The oil and grease merged into a stream with a trail of black bubbles on top of it that led into a gray pond.

Response:

Outfall #7 is within the controlled access part of the airport, but can be viewed from a distance outside the airport while driving along S.154th Street. The outfall was examined up close during dry, sunny weather within a few days following the public meeting. A small stream of clear water constantly flowed out of the pipe. The bottom of the inside of the pipe and its outside edge were stained black by an organic growth where the pipe was always wet. Soil along the ditch below the pipe was examined for evidence of oil and grease adhering to dirt particles and none was found. There was no gray pond observed near the outfall. The outfall was incidentally examined up close from time to time throughout the summer, and even in dry weather, there was always a small flow of clear water observed coming out of the pipe. The constant water flowing from the pipe is probably caused by perched groundwater infiltrating into the piping system.

The comment states that a photograph of the gray pond was taken and passed around at the public meeting. The photograph was not provided to Ecology or shown to any Ecology staff at the meeting.

I should be noted that situations involving storm water discharges at the airport are appropriately addressed through the NPDES permit process.

Transcript from May 21, 1997 Public Meeting

Speaker 7: Jim Bartlemay, Vice President of CASE

I'm here to officially protest this Agreed Order. It allows the POS to conduct their own contamination study on themselves and then gets a stamp of approval by DOE and that seems like a whitewash to me, a whitewash of our government protection agencies. There may be reasons for that and I don't want to go into that, but I do have several items to turn in as a written report against the agreed order itself.

1 [First of all, I notice the groundwater law WAC 173-200 is almost completely left out of that Agreed Order. That state law is protection for groundwater and I think it has to be applied not only to the total area of the airport and future projects of the airport itself.] 1

2 [A second item is that this study is far too limited like the mayor said, 320 acres, which is a half of a square mile, and I calculated 2400 acres. It's less than 14% of the total area, and you can't describe a total airport situation with only 14% on a computer model. You are going to guarantee "garbage in - garbage out" unless you get the total airport shown in that model.] 2

1 [The Qva aquifer is sort of treated as a sewer. You're not protecting it at all and I think it has to be protected along with that WAC 173-200.] 1 [Computer results you can't trust.] 2 [I don't think the Port is qualified and I think you need some expert help, externally.] 7 [There are a number of other reasons I'll turn this in, and] 3 [I think unless this order is modified we all recommend to our board that CASE members start a fundraising campaign to go to the Pollution Control Board and appeal it.] 8

Thank you.

Received Public Meeting
Ridge

May 21, 1997

9:06 PM

I want to officially protest the process within the "Agreed Order" which allows the Port of Seattle to conduct a contamination study on themselves and have it "rubber stamped" APPROVED by the Department of Ecology to make it smell good to the general public. This sounds like a travesty on our rights and a whitewash by one of our so-called government protection agencies, the DOE!

Many facets of this study need to be changed to make it meaningful to the public and the communities impacted by the growth of Sea-Tac. To be brief, I will limit my comments to the top six which are most unacceptable:

- 1) ¹ [Washington State Ground Water Law WAC173-200 must apply to the total of Sea-Tac Airport and Future Projects. The "Agreed Order" would allow the Port to eliminate most of the protection of our critical water resources that WAC 173-200 provides.] ¹
- 2) ² [Scope of the Study is far too limited. Using a computer model of only 1/2 of a square mile of the total 2400 acres is not sufficient for such an important study. Computer models are often misleading and erroneous. Using less than 14% of the potential problem area without any new measurements is doomed only to satisfy the expression: "garbage in—garbage out"] ²
- 3) ³ [The Qva aquifer must also be monitored and protected via WAC173-200] ³
¹ [This is part of our critical water resources which the "Agreed Order" seems to write off as some sort of a sewer.] ² [The Qva aquifer must be added as a "potential local receptor" and be protected as much as Des Moines and Miller Creeks and be continuously monitored regardless of the results of the computer analysis. There is a connection between the Qva aquifer and our drinking water supply!] ³
- 4) ⁴ [Computer results should be used to determine where monitoring should be concentrated; not to eliminate future work as planned.] ³ [Underground water flows are complex and must be monitored per WAC 173-200 until much more is known and a sufficient data base is available where any toxic spill at any part of the airport can be adequately cleaned up without contamination of ground water.] ³
- 5) ⁵ [Procedures for clean-up of spills and the reports on the clean-up actions must be available for review by the public and all government agencies. The DOE should be responsible for monitoring all Port clean-ups.] ⁵
- 6) ⁷ [Public involvement and independent technical experts must be involved] ⁷ [The Port and DOE have been working this order for 2-years without any public (taxpayer) consultation. This is not right!] ⁶ It has the odor of a pact developed ⁶

to deceive the citizens in believing that we are being protected when we are not! We cannot let the Port of Seattle scrutinize themselves; they do not care about the quality of life.

I believe that the study of ground water contamination at Sea-Tac airport is necessary and long overdue given the contamination already existing. However, I also believe that any study should be done using independent technical experts with a minimum of involvement by the Port of Seattle. If the Port is the primary leader of the study, they must be made to do a meaningful study not just a computer modeling of only a small part of the critical area involved. 2

8 [I am recommending to our CASE board that we start a "fund raising campaign and trust account" for

Supporting an appeal to the Pollution Control Board. We will appeal this agreed order unless it is modified to make it acceptable to the local citizens which have to live or ~~the~~ I should say survive the airport expansion and pollution.

Jim Bartlemay

RECEIVED

May 27, 1997

JUN 03 1997

DEPT. OF ECOLOGY

Mr. Roger Nye
Department of Ecology
Northwest Regional Office
3190 160th Avenue S.E.
Bellevue, Wa. 98008-5452

Subject: Formal Comments on AGREED ORDER # 97TC-N122....Agreement for
Ground Water Study at Sea-Tac Airport.

The purpose of this memo is to officially protest the process within the "Agreed Order" which allows the Port of Seattle to conduct a contamination study on themselves and have it "rubber stamped" APPROVED by the Department of Ecology to make it smell good to the general public. This is a travesty on our rights and a whitewash by one of our so-called government protection agencies, the DOE!

Many facets of this study need to be changed to make it meaningful to the public and the communities impacted by the growth of Sea-Tac. To be brief, I will limit my comments to the top six which are most unacceptable:

- 1) ¹[Washington State Ground Water Law WAC173-200 must apply to the total of Sea-Tac Airport and Future Projects. The "Agreed Order" would allow the Port to eliminate most of the protection of our critical water resources that WAC 173-200 provides.]¹
- 2) ²[Scope of the Study is far too limited. Using a computer model of only ½ of a square mile of the total 2400 acres is not sufficient for such an important study. Computer models are often misleading and erroneous. Using less than 14% of the potential problem area without any new measurements is doomed only to satisfy the expression: "garbage in—garbage out"]²
- 3) ³[The Qva aquifer must also be monitored and protected via WAC173-200]³
¹[This is part of our critical water resources which the "Agreed Order" seems to write off as some sort of a sewer.]¹ ¹[The Qva aquifer must be added as a "potential local receptor" and be protected as much as Des Moines and Miller Creeks and be continuously monitored regardless of the results of the computer analysis. There is a connection between the Qva aquifer and our drinking water supply!]³
- 4) ⁴[Computer results should be used to determine where monitoring should be concentrated; not to eliminate future work as planned.]⁴ ³[Underground water flows are complex and must be monitored per WAC 173-200 until much more is known and a sufficient data base is available where any toxic spill at any part

of the airport can be adequately cleaned up without contamination of ground water.3

5) 5 Procedures for clean-up of spills and the reports on the clean-up actions must be available for review by the public and all government agencies. The Department of Ecology should be responsible for monitoring all Port clean-ups.5

6) 7 Public involvement and 7 independent technical experts must be involved. 7 6 The Port and DOE have been working this order for 2-years without any public (taxpayer) consultation. This is not right. 6 It has the odor of a pact developed to deceive the citizens in believing that we are being protected when we are not! We cannot let the Port of Seattle scrutinize themselves; they do not care about the quality of life.

9 During the Public Meeting on 5-21-97 meeting, it was observable that you have already convinced yourself that Sea-Tac Airport cannot improve it's operation and that the Port need not do anything more! Given that this is true, I suggest you excuse yourself as director of this study. The study needs a leader who must be convinced that our precious water resources are in danger of being polluted and must be protected at any cost.9

I believe that the study of ground water contamination at Sea-Tac airport is necessary and long overdue given the contamination already existing. However, I also believe that any study should be done using independent technical experts with a minimum of involvement by the Port of Seattle. 7 If the Port is the primary leader of the study, they must be made to do a meaningful study not just a computer modeling of only a small part of the critical area involved.2

Sincerely,



James M. Bartlemay
Vice President, C.A.S.E.
P.O. Box 98732
Des Moines, Wa. 98188
phone (206) 824-6589

cc: Senator Julia Patterson
Rep. Karen Kaiser
Rep. Rod Blalock
Airport Communities Coalition (ACC)
Ms. Christine Gregoire, Wa. State Attorney General

Response to comments by James M. Bartlemay, Vice President C.A.S.E.

Comments were presented orally at the May 21, 1997 Public Meeting and received in letters dated 5/21/97 and 5/27/97.

Comment #1:

Washington State Ground Water Law WAC 173-200 must apply to the total of Sea-Tac Airport and future projects. The “Agreed Order” would allow the Port to eliminate most of the protection of our critical water resources that WAC 173-200 provides, and allows these resources to be written off as some sort of sewer.

Response #1:

Response to this comment is provided in Part 1 of the Responsiveness Summary.

Comment #2:

The scope of the Study is far too limited because it considers less than 14% of the total 2400 acres that comprise the potential problem area at the airport. Using only this small area in the model without any new measurements will invalidate the model. Computer models are often misleading and erroneous.

Response #2:

Response to this comment is provided in Part 1 of the Responsiveness Summary.

There is no basis to the statement that the entire area of the airport is a potential problem area similar to the AOMA. The AOMA is that part of the airport where airport operations and major facilities involving the storage and transfer of hazardous substances are and have been located, and where the known impacts to the Qva aquifer are located. The groundwater flow model will encompass a large area including and surrounding the airport and will enable the movement of groundwater contamination originating in the AOMA to be evaluated throughout this area. There is abundant existing information to construct the groundwater flow and contaminant transport models without taking new data. The modeling could identify possible areas where new measurements of groundwater quality will be taken.

Computer modeling of groundwater flow and contaminant transport is standard technology and provides significant insight regarding subsurface conditions when realistic input parameters are used along the geologic control. Furthermore, the model will be confirmed by drilling in select areas during Phase II of the study and the proposed scope of work for Phase II will be open to public comment.

Comment #3:

The Qva aquifer must be added as another “potential local receptor” in the Agreed Order and be protected as much as Miller and Des Moines Creeks. To accomplish this, the Qva aquifer must be continuously monitored and as per WAC 173-200 regardless of the results of the computer analysis because there is a connection between the Qva aquifer and drinking water supplies. Underground water flows are complex and monitoring as per WAC 173-200 must continue until much more is known and a sufficient database is

available where any toxic spill at any part of the airport can be adequately cleaned up without contamination of ground water.

Response #3:

The purpose of the Agreed Order is to determine if the known and potential unknown contamination present in the Qva aquifer beneath the AOMA present risk to drinking water supplies and surface waters. The Agreed Order focuses on the Qva aquifer because it is already a receptor in locations beneath the AOMA and because it is the primary vehicle of conveyance for contaminants in groundwater to the potential local receptors identified in the Order. The Qva aquifer is not a potential local receptor in the context of the Agreed Order and will not be added to the others.

A groundwater-monitoring program, particularly one that included not only the Qva aquifer but also perched groundwater flow in the subsurface above the Qva aquifer airport wide as well such as the comment seems to recommend, would require many hundreds of wells. Historical contamination and sources of potential contamination simply do not exist everywhere throughout the area of the airport, and a groundwater-monitoring program of this magnitude is not warranted. Groundwater should possibly be monitored in additional areas outside the known MTCA sites however, and the groundwater study could identify such possible areas.

Ecology agrees that the Qva aquifer must be protected, but not by employing a massive monitoring approach as recommended in the comment. The effectual way to protect groundwater from contamination is to focus on the sources of contamination rather than the receptor of contamination. The releases of hazardous substances from facilities utilizing these substances must be prevented in the first place, rather than monitoring the groundwater as per WAC 173-200 to determine if and when contaminants reach or exceed certain standards of contaminant concentrations.

Comment #4:

Computer results should be used to determine where monitoring should be concentrated, not to eliminate future work as planned.

Response #4:

The computer results could identify possible additional areas where groundwater should be tested and/or monitored. The Agreed Order cannot eliminate the requirements for cleanup under the Model Toxics Cleanup Act, and both current and any future contamination if discovered at the airport are subject to the MTCA process. Results of the groundwater study however, could be relevant to the remedial actions selected to address the cleanup of the current and any future contaminated sites discovered at the airport.

Comment #5:

Procedures for cleanup of spills and the reports on the cleanup actions must be available for review by the public and all government agencies. The DOE should be responsible for monitoring all Port cleanups.

Response #5:

There are no set procedures for cleanup of contaminants released to the environment. Many cleanup procedures are available and it is an area where new technologies constantly increase and improve on the options available. The choice of specific remedial actions at a site are determined by many site-specific considerations such as the nature and distribution of the contaminants, hydrogeologic conditions, risk posed by the contamination, restoration time frame, costs, etc. Regardless of what remedial actions are chosen however, the cleanup at a particular site must ultimately meet the requirements of the MTCA.

It is a requirement of the MTCA that all cleanup actions are reported to the Department of Ecology (WAC 174-340-120(8)(b)). Ecology receives hundreds of cleanup reports each year that document the procedures used and actions taken to address cleanup at MTCA sites throughout the state. The actual reports on the MTCA sites located in Ecology's Northwest Region are located in the Central Files section at the Northwest Regional office in Bellevue. The reports are available for review to anyone upon advance request and copies of any information are available for a copying fee. Information that is older than 10 years is "archived" in Olympia, but it is also available for review upon advance request through the State Archives office.

Ecology attempts to monitor all cleanup activities. There are different levels of Ecology's involvement in cleanup activities at MTCA sites however, which are:

1. Ecology has no direct involvement in the cleanup actions. Ninety percent of all cleanup actions done in the state are done independently. As required by MTCA these independent actions are documented in cleanup reports sent to the agency, and cursory information regarding these reports (date, PLP, site status, consultant, etc) is recorded in Ecology databases. Ecology attempts to review all independent cleanup reports, but given the volume of reports received a rigorous review of all reports is usually not possible.
2. Ecology is involved in cleanup actions after the fact. PLPs can request Ecology's review and written approval of an independent cleanup action after the action is completed. This process is done through Ecology's Voluntary Cleanup Program. A formal application for review must be submitted along with all pertinent material regarding the cleanup action, and the state cost recovers from the PLP for staff time spent on the review.
3. Ecology is involved in and must approve cleanup actions on an ongoing basis. This is a formal process carried out through Agreed Orders or Consent Decrees that are legal arrangements with PLPs. An Order or Decree can be at the behest of Ecology or a PLP.

Ecology has been involved in cleanup actions at the airport and at waterfront locations done by the Port and tenants on Port property under all three of the circumstances related above.

Comment #6:

It is not right that the Port and DOE have been working on the Order for two years without any public (taxpayer) consultation.

Response #6:

Response to this comment is provided in Part 1 of the Responsiveness Summary.

Comment #7:

Independent experts must be involved in the study and the involvement of the Port of Seattle must be kept to a minimum.

Response #7:

The STIA groundwater study is being done under the standard MTCA process of an Agreed Order. Under this legal arrangement, it is not possible for the Port or any other Potentially Liable Party (PLP) to remain uninvolved in their own remedial actions. The Port funds and accomplishes the work through hiring outside consultants and contractors. Ecology must ultimately review and approve of all actions specified in the Agreed Order. The technical aspects of the work done under the Agreed Order will be presented in the final report for Phase I, which will be open to public scrutiny and comment. The project is meant to be an unbiased, technically sound evaluation of risk possibly posed by groundwater contamination at Sea-Tac Airport to the receptors identified in the Agreed Order. Ecology hopes there will be people with appropriate technical and scientific expertise that will evaluate the work during the public comment process.

Comment #8:

The Agreed Order will be appealed to the Pollution Control Board unless it is modified to make it acceptable to the local citizens.

Response #8:

Ecology prefers that this Agreed Order and all other formal cleanup actions done that involve public participation are acceptable to citizens. However, the public participation process is more expeditious under cleanup law compared to other laws, and there is no provision whereby citizens can appeal remedial decisions made by Ecology to the Pollution Control Hearings Board (PCHB). Section VII.D in this Agreed Order specifically states that the Order is not appealable to the PCHB. Remedial actions are not appealable to the PCHB so that Ecology is able to implement remedial actions expeditiously when situations warrant timely action.

Comment #9:

Mr. Nye, the Ecology project manager for the Agreed Order, was observed to have the prejudicial opinion that precious water resources are not being polluted and that nothing more should be done. The study should have a leader that instead, has the prejudicial opinion that precious water resources are in danger of being polluted and must be protected at any cost.

Response #9:

Mr. Nye did not mean to appear prejudicial, but simply stated factual information. The information stated was that the data regarding groundwater contamination at Sea-Tac Airport indicates the known contamination does not appear to pose current risk to drinking water supplies and surface water bodies. This information is perhaps not popular or believable by many, but it is factual and it is documented in many cleanup reports Ecology's Northwest Regional office. It is not prejudicial to state known information.